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SECRETS OF LAWN TENNIS.

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BY

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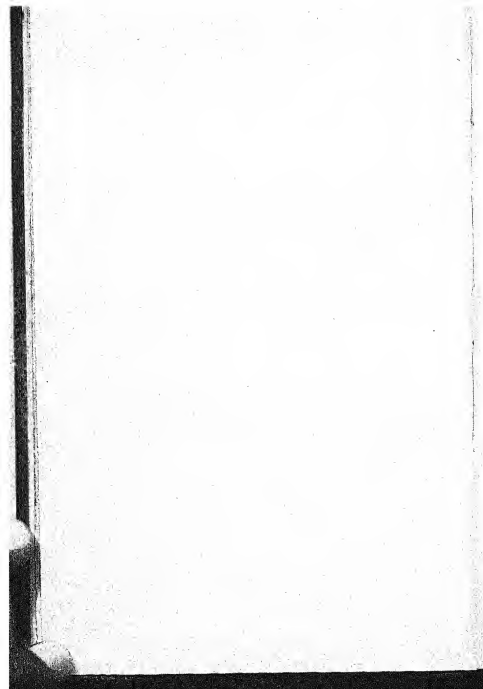
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PREFACE.

IN view of the formidable length of the "bill of fare" set forth in the index of this book, it may be well to state at the outset that only a few of the chapters are at all lengthy, and that most of them are short articles which have appeared at various times in *Lawn Tennis* and can each be read through in a few minutes. Those who do not want to trouble themselves with pure tennis technicalities but who might possibly be interested by other parts of the book will have no difficulty in avoiding the former, for they are all grouped together in consecutive chapters (V. to XI.) in the second section. No doubt the book would have been improved by some action photographs (which may be added in a later edition), but my aim has been to make the letterpress clear and explicit rather than to rely on the adventitious aid of the camera. There has lately been such a deluge of "action photographs" that it may be well to point out that the services of a good photographer are not in themselves a sufficient qualification for writing a book on lawn tennis if neither the tennis-writer nor his "action-photographer" is acquainted with the first rudiments of the practice of lawn tennis.

The question of diet has been dealt with at some length in the present work. Although most of my conclusions have been drawn primarily from lawn-tennis playing, I venture to hope that they may possess some interest and value not merely for tennis players but for others who are interested in the subject. For the information of those who have lately been "revising" their ordinary diet, I may mention that

I shall shortly publish a cheap work (called "The Great Dict Question") dealing almost exclusively with that topic.

I am well aware that a book such as this, which might be supposed, from its title, to deal solely with a particular form of light recreation, starts at a great disadvantage with those who do not follow that recreation. I venture, however, to think that some of the articles in the first and third sections of the book, such as those on "Born Champions" and "Climate," may be interesting to some who are outside the lawn-tennis world.

Although it is hardly likely that I shall be accused by any reader of this book of under-rating the importance of really athletic games, I desire to protest in the name of common sense against the views on this subject expressed in a recent book by Mr. Eustace Miles called "A Boy's Control and Self-Expression." At page 322 of that production he says of "play" that it has the *power to train people for nearly the whole of life*, and on page 329 he says: "Surely, on the whole, play is better for the world and for posterity than most things that most people do now. If we contrast it with most of the other outlets which life offers as alternatives, how many of these are, on the whole, both so genuinely attractive and so harmless or positively useful?" Such statements, if acted on, could have but one result, viz., to bring trade to a standstill and man to the workhouse. Considering the amount of attention which Mr. Miles's opinions receive, it may not be amiss to cite several other gems from the same chef d'œuvre. At page 332 he says:—"It is not too much to say that by studying the behaviour of boys in games, athletics, and self-defence, we could most easily find out *in what subjects, in what professions, they are likely to succeed.*" We can picture to ourselves the schoolmaster of the future scanning his pupils on the tennis court and saying to himself, "I see Brown 'smashes' like a surveyor, Jones 'cuts' like a cotton-spinner, Robinson's under-hand drive stamps him as a solicitor, Johnson volleys like a born analytical chemist, and White has the regular

'diplomatic' service." Mr. Miles's sense of proportion is exquisite. He displays it most strikingly in his remarks about "unathletic hobbies," which is the Milesian term for that practical education in chemistry and technology by means of which the United States has lately astonished the commercial world. He speaks of technology (*the one thing* which can preserve our manufactures and export trade under modern competition) as "a healthy or, at any rate, harmless attraction," the object of which is "some sort of self-control," or "some sort of self-expression," but never "some sort of bread and butter." He includes engineering, modelling, drawing, and carpentering under the aforesaid term, and he seems to regard them as a new kind of squash racquets. In fact, he definitely calls them "a supplement to good play." We can now perceive that St. Paul's Cathedral and the steam-engine were merely the result of the "unathletic hobbies" of Wren and Stephenson. Mr. Miles, in fact, classes these arts and sciences with "Bridge" and "Nap," for he says: "If science does not interest the schoolboys, *competitive card games may be substituted.*" At a time when we see our foreign trade slowly vanishing through our lack of technical education among the better classes, no madder term for it than "unathletic hobbies" could possibly have been coined. The German "hobby" for coal-tar products alone is said to yield them many millions a year. I have examined some statements on diet, &c., made by Mr. Miles in the 2000 and more pages he has given to the public in my other work on "The Great Diet Question," so I will merely add here his new definition of the soul (from page 408 of "A Boy's Control") which I recommend to the theologians of the day: "*The soul involves the all-round fitness, including a feeling of satisfaction and a successful body and mind in many spheres.*"

In concluding this somewhat rambling preface, I would express the hope that although the present volume is in fact a miscellany of various tennis subjects, it will not therefore turn out to be what has been called a "mis-sell-any."

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Secrets of Lawn Tennis.

SECTION I.

MISCELLANEOUS.

CHAPTER I.

THE "CITY MAN" AND WINTER TENNIS.

IN distributing the prizes at the recent Newcastle Tournament, Lord Armstrong, the head of a firm which has a very large number of employees, is reported to have dwelt on the advantages afforded by lawn tennis (as compared with other games) to business men in the way of obtaining a great deal of exercise in a very short time. I have no doubt Lord Armstrong mentally contrasted it with whole-day matches at cricket and rounds of golf, which take up half the day as a minimum. In a play called "A Man of Forty" at the St. James's Theatre several years ago, one of the leading characters used also to give expression to this fact by saying, "At Ranelagh, like the Scotch, we play golf very slow, and drink very long, and sometimes I've been bunkered in the bar for hours." Lawn 'ennis is a more rapid form of amusement. It is now, I fancy, fairly well recognised among English business men that as no one is made of mind alone, without proper bodily exercise no one can long use his mental faculties to the greatest advantage. But the obtaining of this proper quota of exercise amid the hurry and drive of large commercial towns is quite another story, and, in fact, I make bold to assert that throughout the seven

months of the year from October to May a large majority of those engaged in commerce in England get very little outdoor exercise except at the week-ends. The conditions of light and climate usually forbid anything else at present, except for early-morning enthusiasts. There has recently been a great deal of talk about what is called "the Simple Life." It is, I think, generally admitted that one of the chief requisites for leading that life consists in the production of a natural appetite for natural food by outdoor work or exercise. What chance, then, have the bulk of the huge army of City clerks of leading a natural life in winter? In effect they have hardly any. A few have enough resolution to go for walks in the darkness, slush, and fog of the morning or evening, but the majority, when the opportunity offers, endeavour to satiate the imperious craving for relaxation after long days of travail in the fetid atmosphere of London offices, or in the relaxing "fuggy" air of London streets, by exchanging one bad atmosphere for a worse in some "place of amusement." It is because I believe that not merely the employed but the employer as well would in the end derive great financial benefit through the increased efficiency of his employees that I venture to suggest to the latter that the way to solve the problem of winter exercise for business men consists in the erection of covered lawn-tennis courts in the suburbs, with an electric lighting apparatus such as is in use at the courts in Stockholm. By this means, in the early morning or in the long winter evening a man could obtain enough exercise in an hour to keep him as fit and well for his work as he could desire and to ward off that breakdown in health which the conditions of commercial life in London so often produce. There is a vast difference between the *tennis hall* and the *music hall* in their effects as places of amusement on their respective votaries. Physiologists tell us that life is only maintained by a constant adaptation of the organism to its ever-changing environment. The "organism" in a modern London office has an environment which is undoubtedly about as difficult for adaptation

(from the point of view of health) as could be imagined. If anyone has not personally experienced this, let him go and mark the uniform gravity which prevails in 'bus, "tube," and street of the metropolis. London stands alone in the world. Glasgow is the second largest city of the kingdom, yet one can walk from Sauchiehall Street to the wild hills and back again in an afternoon. Within an hour on foot from the Ring-Strasse in Vienna I have "put up" a hare and some partridges. It would be difficult to do this from Cheapside in the same time. The inhabitants of Ancient Rome doubtless suffered from many drawbacks, but they were at least in happy ignorance of the pleasures of ten miles an hour in the fog on the "South-Eastern and Chatham" at the beginning and at the end of a London day. The conditions of life in many large cities are unpleasant, but nowhere else are they like those of London, where one of the smaller suburbs is larger than many a European capital.

There is all the difference in the world between physical exercise and physical recreation. Even if anyone has the resolution to take enough exercise in the winter evenings to preserve his health, the walk is a very different thing as regards exhilaration from two or three good sets of tennis. Next to the strain of a long case in the poisonous atmosphere of the Law Courts, I fancy a Cambridge Tripos examination, in which the work of several years has to be compressed and displayed in eighteen hours, is about as severe as one could want; yet many a man finds every year that a spin on the river or a few sets of tennis "on the backs" in the evenings enable him creditably to endure that ordeal of three or four days without serious inconvenience. The Londoner in the winter constantly gets the ordeal without the relaxation of the exercise. Hence he often "breaks down." The character of a man's amusements has a great deal more to do with the character of his work than most people imagine. There is another very large class which would, I think, benefit greatly by the construction of winter tennis courts in London and the suburbs. I refer to the

suburban girl. When the weather is too wet or foggy for hockey matches or for the damp joys of the golf course in winter (a thing that happens about four days a week on the average), it is a case of either no exercise at all or a heroic trudge through the muddy roads.

Therefore, I assert that the covered-courts movement would be a godsend to this class in the winter months, and it would also in many cases form a general social centre, a common interest and rendezvous in the suburbs, a thing in which they are at present almost entirely lacking. The suburbs of London in winter recall Carlyle's remark about Chelsea in August—that outside of "La Trappe" (monastery) it would be hard to find anything like it. If I might hazard a prophecy, I should say that we are most likely to see a move in the right direction in this matter in Newcastle, where the bracing climate develops a wonderful energy in business and sport. Covered courts would be as beneficial in the large provincial towns in the winter as in the suburbs of London. The best way to get the thing done consists in proving to "heads of firms" and other capitalists that winter tennis courts would in the end tend greatly to improve the business capacity of their employees.

It must be admitted by the most casual observer of the field of athletics in England that the respectable, tax-paying, pew-renting section of the community holds far too much aloof from that field, a large portion of which is usually occupied by the dregs of the middle class, and sometimes by those who are among the scourges of the country. There is, of course, a large sprinkling of the better sort, but nevertheless it must be confessed that there is at present a strong affinity between the field of athletics and the scum of society. In view of the part played by outdoor sport in keeping people in health, I should be glad if anyone could explain to me why this should be so. Possibly, the explanation is to be found in the fact that people who spend their lives in hanging about racecourses are confused with athletes. Both are classed alike under the term "sportsman," and "sport" is consequently in bad odour with many people. As long as a man

who spends his days sitting on coaches beside lunch hampers at races, or putting "fivers" on "favourites," is confused with a man who has a good average at cricket or rides straight to hounds or plays good tennis, so long will the term "sportsman" convey an innuendo which it does not deserve.

I should describe the present state of English athletics as somewhat "inorganic." The athletic needs of the people are too much left to take care of themselves, and, while the favoured few get everything done for them in the way of athletic recreation, the needs of the majority get very little attention. I have seen a sort of "municipal tennis club" in Copenhagen where twenty-five gravel courts had been constructed for the recreation of the people, which might well be imitated here.

The need for exercise, which is only second to the need for food, is thus described by Addison in the "Spectator" of 1711:—"There is a story in the Arabian Nights tales of a king who had long languished under an ill-habit of body and had taken abundance of remedies to no purpose. At length, says the fable, a physician cured him by the following method: He took a hollow ball of wood and filled it with several drugs; after which he closed it up. He likewise took a mall [a sort of racquet], and after having hollowed the handle and that part which strikes the ball, he enclosed in them several drugs after the same manner as in the ball. He then ordered the sultan to exercise himself early in the morning with these instruments till such time as he should sweat; when, as the story goes, the virtue of the medicaments perspiring through the wood had so good an influence on the sultan's constitution that they cured him of an indisposition which all the compositions he had taken inwardly had not been able to remove. This Eastern allegory shows us that exercise is the most effectual physic. . . . All those inward applications which are so much in practice among us are for the most part nothing else but expedients to make luxury consistent with health. The apothecary is perpetually employed in countermining the cook and the vintner."

CHAPTER II.

ATHLETICS AND THE BRAIN.

THE great question as to the effects of physical exercise on the reflective faculties, of which the brain is the physical organ, is one which has hitherto received scarcely any scientific attention in England. It is often contended that games use up energy and distract attention which would otherwise be bestowed on business. I have no doubt that in many cases excessive athletics are a curse both to employer and employed from a financial point of view. For a man has only a certain amount of available energy, and if exercise be too severe or prolonged, the energy required for mental exertion will probably be deficient on the following day. Very few people trouble to make any inquiries beyond this point, although there is a great deal beyond it, especially as regards the cerebral effects of athletics *after due rest*. Every University athlete who happens also to be something of a scholar could no doubt tell us much that would be interesting about the effects, for example, of boat-racing and training on his mental powers, which are often quite the opposite of what is supposed. The chief physiological reason why exercise undoubtedly does, under some circumstances, greatly stimulate the action of the brain is to be found in the fact that every limb has its separate motor area in the brain, from which it is worked, and which is in its turn affected in various ways by such working. Now, the brain is, of course, "all bound up together," and consequently I take it that the great stimulation of the mental faculties which certain kinds of exercise produce arises from the fact that all parts of the brain share to some extent in the stimulating effects produced in the locomotor areas of it by exercise.

The use of the left hand as well as the right no doubt has some stimulating effect on the brain. Take, for example, the case of rowing, and more especially sculling. I do not mean the sort of rowing produced by what is called in the Navy the "dockyard dip," but good rowing in racing "eights."

Although I am, of course, aware that after rowing a "full-course trial" or sculling for fifteen miles a man is not of much use for brain work for the rest of the day, nevertheless I found over and over again at Cambridge and elsewhere that the effect of this particular exercise, in moderation, in stimulating the action of the brain was wonderful. In my experience, both rowing and sculling, *provided they are not too prolonged*, tend to produce mental activity, and I take it that the extreme vivacity and cheerfulness which "crews" so often display are partly due to this cause. It has been said, by Mr. Eustace Miles among others, that men in rowing training cannot study. As regards my own experience, I can only say that I have never in my whole life found my head so clear for study as in the four morning hours between breakfast and lunch during rowing training at Cambridge—i.e., before the rowing took place. It was worth going to the University for that experience of perfect health in mind and body, if for no other. Too heavy a training breakfast (I remember one man who ate eighteen poached eggs at a sitting!) would, of course, have put study out of the question, but there was no need to eat all the "courses" of that meal.

As regards the cerebral effects of lawn tennis, I have observed one definite fact in my own experience. Whenever I have taken part in one of those prolonged contests such as occur, perhaps, a dozen times in a player's whole experience, and last perhaps for two or three hours, I have *invariably* observed that sooner or later, after plenty of rest, their effect on the mind was as if everything which clogged and obstructed its free action were swept away, and one's perceptions were immeasurably clearer and stronger than usual. Miss Marie Corelli, in discussing in one of the London papers what she called "ball-game maniacs," expressed

the opinion that lawn tennis tended to "woodenize and leatherize" the brain. But, according to my experience, I should say that, in moderation, it does exactly the opposite.

It is no doubt true that many of the mental faculties either lie fallow or rust if athletics are not daily balanced by brain work, but that the former tend (in moderation) to stimulate and not to retard the latter is shown by the Latin proverb "*Solvitur ambulando.*" Moreover, after a fairly wide observation of lawn-tennis players, I should say that (especially as regards the successful ones) the game tends directly to develop shrewdness, humour, and mother-wit even in those who have no intellectual interests.

As it is hardly possible not to be aware that the question of the amount of time consumed in athletics, especially at school and college, is a burning one in England to-day, I have inserted here some of the ablest remarks I have ever read on the subject, from the pen of an American, General F. A. Walker, who, after obtaining the highest honours (and many wounds) in the Civil War, became one of the first professors of political economy in the world. I intended to have condensed his remarks on athletics, but they all seemed so admirable that I did not like to do so. They are from a chapter on "College Athletics." He says:—

"No theme is to-day of greater consequence to the colleges and universities of our land, whether as influencing school discipline or as affecting the standard of scholarship. The past ten years have witnessed a remarkable development (in college athletics). The rising passion for athletics has carried all before it. . . . Among the governing bodies some applaud, some doubt, some disapprove; others are simply dazed and know not what to think. In the larger community there is, perhaps, an even more pronounced divergence of opinion. There is a host of editors, preachers, and men of affairs in the outside world, and a host of parents and guardians more directly concerned, who are sure that it is all of evil; that the colleges are simply going wild over athletic sports. To many of these it is a monstrous thing that large bodies of young

men should give themselves up to contests of skill and strength."

He then goes on to say that before the War of Secession (1861) "throughout the wider community there was almost no athleticism. . . . Almost no honour was then given to a young man because he was strong, swift, courageous, or enduring. The college hero of those days was apt to be a young man of towering forehead, from which the hair was carefully brushed backwards and upwards to give the full effect to his remarkable phrenological developments. His cheeks were pale, his digestion pretty certain to be bad. He was self-conscious, introspective, and indulged in moods as became a child of genius. He had yearnings and aspirations, and not infrequently mistook physical lassitude for intellectuality, and the gnawings of dyspepsia for spiritual cravings. He went through moral crises and mental fermentations which seemed to him tremendous. From the gloomy recesses of his unventilated room he periodically came forth to astound his fellow-students with poor imitations of Coleridge, De Quincy, Carlyle, and Goethe.

"Sometimes they were thunderous orators, more Websterian than Webster. . . . But, however the type of the college hero might vary, speech-making, debating, and fine writing were the be-all and the end-all of college training, as in the world outside the college speech-making, debating, and fine writing were the sole recognised signs and proofs of greatness. Physical force, dexterity, and endurance, capacity for action, nerve and will-power went for little or nothing so far as public admiration was concerned. Statesmanship itself was perverted by eagerness to seek occasions for oratorical display. . . . Shrill-voiced declaimers could catch the ear of a nation *given over to the lust of words*. 'Sir,' said Daniel Webster, 'the curse of this country has been its eloquent men.' . . . There was contempt for physical prowess. Brains and brawn were supposed to be developed in inverse ratio. Affected notions about intellectuality and spirituality had almost complete control of the popular thought. The only things to be admired were mind and soul.

Strength was believed to be closely akin to brutality. Danger, positive danger, to spirituality, if not also to morality, lay in physical force and exuberant vitality. The same notions perverted ideals of womanly grace and beauty. . . . Languor and pallor were attractive, delicacy of frame and limb was admired.

"The indifference towards, or the dislike of, athletics a generation or two ago was also largely due to the religious ideas and feelings of the time. The body was but a shell, a prison in which the soul was confined, and against whose bars its aspirations continually beat and bruised themselves. In another image, the body was a wayside barn in which the weary pilgrim laid himself down to rest till break of day. The flesh was an encumbrance to the spirit, a clog, a burden, a snare. Men had been told to 'keep the body under,' and perchance this was thought to be an easier task if that body were small and weak . . . even among the most intelligent teachers of those days there was manifest a strong dislike, a sharp shrinking from all dwelling upon the physical basis of life, as savouring of materialism.

" . . . All these notions have gone. The *caravanary* idea of existence has been abandoned. Man is not a pilgrim but a citizen. He is going to tarry nights enough to make it worth while to patch up the tenement and even to look into the drainage. This world is a place to work in; activity and development, not suffering or self-repression, its law. . . . Hearty physical force may, indeed, consist with vicious desires, but it does not favour them. Vicious desires are at their worst in feebleness and in morbid conditions of body. The sounder a man is, the stronger he is, the less—other things equal—is he subject to what is bad and degrading; the more pleasure does he take in what is natural, healthful, and elevating. To a man perfectly sane physically, life itself becomes a joy. The relish for it does not need to be stimulated by the spices of vicious indulgence any more than a healthy appetite needs to be stimulated by the spices of the cuisine.

"During the (muscular Christianity) controversy . . . many wrote and spoke as if all evil were to be

worked off in the gymnasium and on the race-track; as if every vice of human nature would exude through the pores of the skin, were perspiration only sufficiently active and long enough maintained. But in spite of much that was crude and foolish these men had hold of a great truth. The War of Secession produced a vast change in popular sentiments and ideals, as it showed how much nobler are strength of will, firmness of purpose, resolution to endure, and capacity for action than are the qualities of the speech-maker and the fine writer, which the nation had once agreed chiefly to admire.

"Athletics differ from gymnastics chiefly in excess in the amount of exercise over what would be required or would be performed without the introduction of the spirit of emulation. So great is this excess that it may not unfairly be said that athletics begin where gymnastics leave off. Specialisation affords a more direct object, and creates a far more intense and sustained interest."

Speaking of contests of a too violent and prolonged character, General Walker says that "no earthly object except the saving of life or the defence of one's country would warrant them," but that instances of permanent injury are few. He also says: "The college athletics of to-day do wonderfully light up the life of our people. This nation has long shown the painful need of more that shall arouse an interest in something besides money-getting or professional preferment. The marvellous rapidity with which football has spread in the Western and Southern States shows how eagerly it is welcomed as a relief to the monotony of life.

"The favourite athletics of to-day demand coolness, self-knowledge, self-reliance. They often demand the ability to work with others, power of combination, readiness to subordinate individual impulses, selfish desires, and even personal credit to a common end. These are all qualities useful in any profession; in some professions they are of the highest value; and it cannot be gainsaid that it is the normal effect of certain kinds of athletic sports to develop these qualities

among the contestants, as well as to afford impressive examples to the minds of the spectators. So genuine does this advantage appear to me that were I superintendent of the (Military) Academy at West Point I would encourage the game of football among the cadets as a military exercise of no mean importance. It is the opinion of most educated Englishmen that the cultivation of this sport in the Public Schools of that country has had not a little to do with the courage, address, and energy with which the graduates of Rugby, Eton, and Harrow have made their way through dangers and over difficulties in all quarters of the globe.

"The last consideration which I would adduce to show that what is sacrificed in athletics is not all lost is that in the competitive contests of our colleges something akin to patriotism and public spirit is developed. Faculties (*i.e.*, governing bodies) are to be educated, to avoid intermeddling and petty dictation on the one hand, and to sustain the claims of scholarship and enforce the right discipline of college on the other.

"May we yet believe that it is practicable to insist upon the requirement of at least respectable standing in the case of all who participate in inter-collegiate contests? I believe that this can be done provided faculties are frank and firm in dealing with the student bodies and thoroughly honest in their treatment of the subject.

"I fear there is little in what has been here said to give comfort to those who distrust and dislike college athletics—little which intimates the opinion that the athleticism of to-day is only a reaction after the former total neglect of gymnastics or a mere passing passion among our youths."

"Is there a stopping-place? I answer 'Yes, at the doors of the professional school.' In and after the professional school the principle of competition and championship should be dropped. . . . They should play for exercise and for the fun of the thing, recognising the fact that they no longer have the time or the strength at command to make and keep them champions."

"No classical scholar will for a moment admit it to have been an accidental coincidence that the nation of the Old World which pursued athletics with the most passionate eagerness, which showered honours upon the victor in running or in wrestling not inferior to those which it gave to the author of an accepted tragedy—that nation whose tribes came by long and perilous journeys over stormy seas to witness the great athletic competitions by the banks of the Alphæus or on the Crissean plain—was the same nation which carried the arts, and especially the plastic arts, to the highest form of perfection ever attained. If, indeed, there is believed to have been a vital connection between these seemingly diverse manifestations of Grecian life, who shall say that the remarkable enthusiasm for physical training and the intense interest in athletic contests which have been so suddenly developed in our country may not be clearly seen a generation hence to have accompanied, and that through no accidental association, the elevation of art to a far higher and nobler place than it had before occupied in the thoughts and affections of our people."

CHAPTER III.

"BORN CHAMPIONS."

IN one of Mr. Eustace Miles's numerous works I have noticed that he persistently advocates the "born genius" theory; in other words, he suggests that, although there may be "no royal road to knowledge" either of books or games for ordinary people, there are certain individuals for whom there is such a royal road, and who are consequently exempted from the labours ordinarily necessary for success, which they obtain without effort by means of some Heaven-born faculty lacking in ordinary people. "He came, he took up the bat, he excelled," says Mr. Miles of his genius, and, whereas he advocates daily practice for the other class, he suggests that the genius scarcely needs to trouble himself about such a trifle, as proficiency comes so absurdly easy to him. Mr. Miles admits, however, that "there are some who say that attention is all the faculty there is," doubtless alluding to Sir Isaac Newton, who said that genius consisted in "an infinite capacity for taking pains." After playing a good deal with various "born champions," and observing their methods, I incline to the belief that genius is at bottom produced by a voluntary concentration of the will. But the concentration to which I allude is not merely exercised in one particular thing—such, for example, as a game at lawn tennis—but is something radical and vital affecting the way in which a man does whatever he does seriously, and the way in which he spends his whole time. One man, perhaps, constantly uses his faculties in business, and then goes on to the tennis court or the golf links and often beats another who gets ten times as much practice, because perhaps the latter pursues no calling of use to

anybody and lets his will-power lie fallow, except in diversions. He wins, as it were, "on his past," and by superior concentration of mind. As regards lawn-tennis geniuses, most people will say at once, "Oh, it came naturally and easily to them"; and, when asked how they know that, they will reply, "Anyone can see that," or "He says so himself," for most geniuses think (wrongly, in my opinion) that the "Heaven-born" theory is the most flattering to them.

Now, the chief product of real concentration of the will on any object is undoubtedly *facility*. By constant attention a man obtains mastery of his own faculties, so that they do his bidding readily in the time of action—*e.g.*, in a tennis match. Long concentration produces sub-conscious action, which appears to be involuntary. The facility thus obtained (mainly produced by what the Scotch call "just a mental operation"), which is really the result of severe concentration of the will and of the determination with which the man does whatever he does seriously, is usually mistaken for a kind of inborn careless ease, because "it looks so easy," whereas it is really of quite a contrary kind. I quite admit that a man of the habit of mind indicated above often needs to practise one particular thing, such as lawn tennis, much less than another man; but then he does not let his powers rust too much in the interval: whatever he does seriously he does with his whole attention and interest. Many geniuses often "give out," as I have said, that it comes easy to them; but in any case we have only their word for it, and I have seen photographs of "born geniuses" taken at critical moments in important matches which throw a singular light on the question whether they make efforts like other people, or not. And, in general, the more settled a man's determination may be, the less is it visible. It is quite true that when, for example, a "born champion" plays what is called a "made" player, the latter may make efforts as great as (or greater than) the former, with far less result; but each man is the product of his own past course of action, so that the latter may have wasted his energies in many ways, while the former preserved his, and may have failed to

use those powers of concentration on many other occasions than at lawn tennis when the "born" player may have unobtrusively done just the opposite. The Scotch say, as I have observed, that "putting" at golf is "just a mental operation"; and winning at tennis is much the same sort of thing. Most players reflect to some extent before they play important matches, and, in my belief, the character of those reflections often largely determines the result of a match. It has been said that the mental is "the parent and first cause of the practical," and that "the outward thing"—*e.g.*, one's form in a given match—is "merely the garment of a thing which already existed invisibly within."

The chief points for which I have contended above are: (1) That concentration of will-power wins matches. (2) That such concentration is not necessarily exercised in a particular pursuit, but is developed or otherwise by the way in which a man does everything, and especially by the way he spends his time. (3) That such concentration may be largely mental and untended at the time by athletic or other action. (4) That facility of action is ultimately the result of some sort of concentration of faculty, and is not the result of some inborn quality not originating in concentration and effort of some kind. (5) That the "born champion" is, in fact, one who has developed a settled character for concentrating will-power.

I do not in any way underrate the great influence of heredity, but no one knows how far natural defects can be remedied by the exercise of the will.

There is one fact connected with the subject of "Born Champions" which is constantly being hammered into people who play much tournament tennis, provided they possess any powers of observation. I refer to the striking differences in character, and especially in abilities, which are indicated by dark and light hair. All players who seriously try to win matches learn a good deal more of each other's capacities in defeating or being defeated by each other than in ordinary life. In case anyone should take my ideas on this subject for mere idle whims, I may say that they are also shared by three writers who, whatever

may be thought of the tendency of their works, were at least men of most exceptional genius. I refer to Byron, Goethe, and Schopenhauer. According to my experience, dark or black hair is much more often associated with that intensity of emotional power which is the root of success in all undertakings, and which goes by the name of genius. There are many other pursuits besides lawn tennis in which this fact can be observed. Among the Jews who so successfully control the money markets in most of the capitals of Europe, *i.e.*, who often actually do that which most financiers would like to do, the prevailing colour is jet-black, often in complete contrast to the prevailing colour of the natives. In cases in which heavy financial responsibility rests on one man in commerce he is more often dark than not, and the typical successful merchant in all parts of England usually has dark hair and a slightly reddish beard. There may be many modifying circumstances, but I think it would be generally agreed by close observers that, *taken by itself*, black hair is usually a sign of ability. As success at lawn tennis depends not upon one but upon many circumstances, this fact is often obscured in that game. For example, a light-haired man may beat nearly all sorts of people by means of great muscular power joined to an exceptionally sound nervous system, and some pluck also, but when the plain, plugging style of play is not sufficient, but subtlety and finesse also are required for victory, he goes down. But, on the other hand, many dark men with plenty of ability and *concentration* (which dark hair usually implies) are lacking in courage, and in that case all their subtlety will often avail them nothing at lawn tennis when they meet some light-haired hitter with plenty of pluck. And again there are the factors of bodily condition and of occupation which often decisively affect the results of matches. Light-haired people are generally supposed to have less emotional control than dark ones.

In view of the great variation of character which is often indicated, *e.g.*, by auburn hair, it is astonishing that this subject should receive so little attention. Dr. Bucknill thought that Lady Macbeth may have had chestnut or blonde hair, which I should think very

likely. Doubtless there are many people of excellent repute with red-brown hair. All I contend for is that, as Schopenhauer puts it, this colour represents a departure from the normal type of the species. It is noteworthy that the man who caused the deaths of two million men in the last century had very dark red hair (see Maitland). Among the cases in which black hair has been associated either with genius or at least with conspicuous ability at lawn tennis, I may mention R. F. and H. L. Doherty, W. and H. Baddeley, H. S. Mahony, H. S. Barlow, Holcombe Ward, W. V. Eaves, G. W. Hillyard, and M. Décugis. J. Pim and W. and E. Renshaw alike had decidedly dark hair. In the matches among first-class players, according to my observation a blonde player often beats a dark one by superiority in muscles, nerves, courage, or condition, but not often by finesse or tactics. Quite apart from skill or knowledge of the game a really sound condition of the nervous system is at least half the battle, for without it a player cannot do what he often knows well enough how to do.

The science of physiognomy is but little understood at present, and the people who really know a few facts about it, such as doctors, Jews, champion lawn-tennis players, and others, have usually no reason for disclosing what they know. Country folk also, in remote places, often possess unerring instincts, but they could very rarely put them into words. I need hardly say that a real knowledge of the subject is of course of great practical value, especially as a safeguard, but because the subject is difficult, being more a matter of perception than of logic, and because one feature often neutralises and contradicts another, most people agree with Duncan that

There is no art
To find the mind's construction in the face.

It could only be said of a small minority:

In Nature's infinite book of secrecy a little I can read.

I would add something here about the inferences which can sometimes be drawn from the colour of the eyes. In general, I have found opponents with grey or blue eyes much oftener possessed of courage or

ability, or both, than those with brown or black ones. After considerable observation I assert without hesitation that some sort of obliquity of character is much oftener associated with black, red, greenish, or yellowish eyes than with blue or grey ones. It was not without reason that Dickens sketched Uriah Heep with red eyes or that most of Byron's heroines had black eyes. I, of course, only contend for the general rule, and am quite aware that there are exceptions.

Hazlitt said of the first Napoleon that his face had "a casing of steel round it." People who do not know or who doubt the significance of a long or massive but well-moulded lower jaw as a mark of unusual though not necessarily useful executive power, would soon find out that fact in the rough-and-tumble of a season's tournament tennis. But in any case if one takes the trouble to observe a good number of members of the Army or, especially, the Navy, or of others whose occupation is eminently of an executive rather than of a reflective character, they will soon see that although there are many exceptions, these people differ oftenest from the ordinary citizen in this essential particular of the long or massive lower jaw. A long chin is a very common concomitant of aristocracy in both sexes, and is often associated with its founders. It is also common among master-manufacturers.

It is well known that Napoleon in selecting his generals judged by their noses, and in general it may be said that a man's executive capacity is as plainly indicated by this feature as by the chin. In fact, next to the eyes, the nose is the most indicative feature that we possess. For not only the executive but also the reflective faculties (or the absence of them) are often indicated by the shape of the nose, and especially of the nostrils. Very thin nostrils mostly denote the absence of independent reflection, while breadth of nostrils, if associated with a long or prominent nose, is a sure sign of its presence. Everyone knows also the look of the "acquisitive" nose, and how rarely it speaks incorrectly. The pictures of Bernadotte in the Cavalry Barracks in Stockholm show a very strong

executive and acquisitive nose. In general, champions of all kinds nearly always possess long or prominent noses of some sort, and very often the better it is shaped, the greater is their executive capacity. Sometimes a strong nose will to some extent make up for a weak chin, and sometimes, but rarely, we see a very strong chin coupled with a weak nose, in which case the possessor is often a most efficient tool in the hands of others. The executive powers, especially at lawn tennis, of anyone with a thoroughly retroussé nose are almost always insignificant, although the late H. S. Mahony was to some extent an exception to this rule. In general, a short nose, even though well formed, denotes deficiency in initiative. In the Navy, where people (more or less necessarily) often grow old in executing the orders of other people, it is not uncommon to see a short, unreflective nose combined with a very strong executive chin, even among the higher ranks. It is well known that the presence or absence of eyebrows signifies a great deal in the matter of shrewdness or subtlety in an opponent, and if other things be equal, the man with eyebrows (provided they are not blonde eyebrows, which are a sign of weakness) will nearly always win. Eyebrows are one of the chief signs of intelligence or subtlety in lawn-tennis players (as opposed to mere muscular power), and I have seen cases of players who were absurdly deficient in good strokes yet who won many prizes by their crafty game. They usually possessed eyebrows of some sort. On the whole, I should say that the colour and general look of the eyes are the most indicative signs in judging the "dangerousness" of an opponent, but the degree of executive power in the nose and chin, the presence or absence of eyebrows, and the colour of the hair may all greatly modify the general verdict. At a recent trial, a doctor who gave evidence stated that the prisoner had the "insane ear," whatever that may be. A large ear is in general a sign of coarseness, and if the ear be placed unusually low down or be badly shaped its owner rarely possesses much capacity. Projecting ears are often associated with a certain kind of energy and combativeness.

CHAPTER IV.

INVOLUNTARY HEROES.

THIS article deals mainly with the subject of military service, and in case anyone should hastily conclude that the subject has no earthly connection with lawn tennis, or that the views of the writer are those of a *mauvais sujet*, I would ask him at least to suspend his judgment until he has read to the end of it. We all know that it is quite common at the present day for influential people seriously to advocate conscription as the only safeguard against the grave risk we run at present in keeping so small a proportion of men in England with even a rudimentary knowledge of arms. I cannot imagine anything more calculated to bring about our national downfall (if acted on) than the amazing statements made by Mr. Balfour about the Navy and the Volunteers towards the close of his term of office. That the first Minister of a country which can be reached in some minutes less than an hour from the Continent should gravely tell the House of Commons that there was no need for an army of home defence owing to the excellence of the Navy is strange enough, but that London daily journals should echo the statement is stranger still, especially to anyone who is sufficiently acquainted with the sea to know that people cannot patrol an island with warships as they form a cordon of police round the Mansion House. I believe that the wanton and absolutely useless provocation of the Volunteers by the late Government greatly influenced the last Election.

In effect, nothing happens at sea exactly according to the programme, but there is always some condition of wind and weather, some "rub of the green," which modifies all calculations, and often upsets them. However strong our Fleet may be, no captain in his senses

would deny that temporary gaps might occur in our coast defence by means of diversions caused by attack, or of storms or darkness. The *turbine troopship* is a brand-new feature in war, the practical effect of which in upsetting previous ideas no doctrinaire or wiseacre can accurately gauge. But there are many people who, while fully aware of the necessity for a large "Landwehr" or army of home defence, are strongly opposed to the means whereby Lord Roberts and Lord Meath and others of that kidney propose to raise it. A candid epitaph in memory of one of the proposed conscript citizens would run somewhat as follows: "Erected to the immortal memory of Private John Smith, draper, of this town, who was killed in action, &c. N.B.—He did not want to fight, but the State first drilled him against his will and then took him by the scruff of the neck from among his ribbons and gloves, made him an involuntary hero, and pitchforked him into gun-fire and immortality. R.I.P." It would somewhat detract from the pleasure and pride which our descendants would otherwise naturally feel in contemplating the monuments of those who shall have fallen at some Marathon or Waterloo of the future if they had to reflect that these patriots could not help themselves, but, whether they liked it or not, were coerced into martyrdom for their country by a parental Government.

It is all very well for the gentlemen mentioned above to talk glibly of conscription under the plea of "duty to one's country," &c., but if I know anything of my countrymen I predict that, Meath or no Meath, the actual attempt to bring the press-gang inside the Englishman's cottage and to seize his sons would bring about a civil war. It is not surprising to find that some of the leading Roman Catholics, such as the Duke of Norfolk, are strongly in favour of compulsory service, because, in the first place, people who are trained to submit their consciences to a spiritual drill-sergeant will readily submit their persons to a military one; and, secondly, the compulsory obedience to the latter tends to smooth the way to submission to the former. If there be one thing more than another which is made

plain in Plutarch's "Life of Cæsar," it is the fact that *his soldiers did not fight under compulsion*. They fought under the stimulus of honour, or plunder, or the fear of contempt and of being called "civilians." Their leader was sufficiently aware of the low value of military service unwillingly rendered to refuse to avail himself of it.

The object of this article is to advocate certain methods whereby Volunteer service might be made sufficiently popular to produce a Volunteer army of home defence which should be large enough for the needs of the country. My suggestion, briefly, is that (1) Volunteering should be officially associated with two forms of athletics which, when properly pursued, are not merely of unique value for physical health, training, and development, but, further, are, *beyond dispute*, productive of the greatest discipline among those who aspire to success in them. Plenty of people who have seen the 'Varsity boat race or a good championship "Double" at Wimbledon will agree with me that in claiming this quality for rowing and lawn tennis I am in no way overstepping the bounds of literal truth. (2) In furtherance of this proposal official recognition of these sports as powerful auxiliaries for military training and discipline, I suggest that a series of large Volunteer depôts or barracks should be established at various country places on the banks of the River Thames (and other rivers near large towns), where at suitable times, and especially at week-ends, the members of the various London and other corps could reside under military rules, learn military duties, and, at the same time, have the benefit of proper coaching in good rowing and lawn tennis. The comparatively small proportion of people who know what good college rowing is like, and how keen people become over it, will mostly agree that the use of this sport as a "sweetener" of the military pill would make it tolerable and positively enjoyable to thousands who at present fight shy of the monotony of Volunteering. And the same is eminently true of good lawn tennis. The great feature about these sports which is conspicuously lacking in most of the Volunteer training—at least, of foot

soldiers—is that they tend to develop individuality and self-reliance by the direct, and often severe, calls which they make on individual courage, resource, and stamina. One never knows how great an advantage this development of personality may prove to be in time of need. In the words of a writer on International Law, "the escape of a single interned subaltern may change the fate of Europe." A Volunteer "private" may go through fifty sham fights and "Easter manoeuvres" with very little exhaustion in wind or limb, and with no nervous strain to speak of, but to row a race or play a close championship match is quite another story. The vendors of a well-known chocolate publish a testimonial from some Aldershot officers to the effect that they were sustained during a field day of fourteen hours on four sticks of that sweetmeat. Most tournament players would be very sorry to play a day's tennis on that allowance. A man who comes to the front either as a sculler or a lawn-tennis player is necessarily a real personality of some sort, and it is exactly this kind of man who is most needed in war, and who, under the present Volunteer system, has precious little chance for showing or developing his latent powers, whereas a man's "public form," either on the river or at tennis, and his association with his confrères at those sports, in general supply the latter with the most tangible proofs of the qualities he may or may not possess. There is nothing in this world like close athletic contests for enabling people to accurately gauge each other's qualities, and for preventing them from under-estimating them as they otherwise might. The amount of resource or bravery which a man possesses is known to a nicety among his competitors at those sports in which he is frequently pitted against them.

The proportion of people who participate especially in first-class rowing is ridiculously small at present, and a city of five millions of inhabitants is represented in one of the healthiest and most salutary sports on earth by a handful of suburban clubs which eke out a precarious existence with a rowing clientèle of a few dozen men. The same city also possesses at the outside

about a dozen lawn-tennis players who could hold their own in good tournaments. Napoleon said that an army could only become first-class by means of constant wars, and as our island position has helped to preserve us from these, it appears to me that sports of the kind I have named are very efficient substitutes. Those who are interested in the great questions of national physique and national defence would do well to consider what a powerful engine they would hitch on to the Volunteer wagon if they were properly to organise these sports and use them as an inducement for young men to join military institutions where, along with the military training, they would get healthy and enjoyable athletic sport with the good-fellowship which the particular pursuits I have mentioned almost invariably engender. A little encouragement and patronage at the start might suffice to "set the ball rolling," with results which but few people would have predicted. I believe that by the method indicated above, and by means of frequent inter-regimental boat races and prize tournaments, many thousands of young men who now either keep out of the Volunteer force altogether, or are with difficulty induced to spend a fortnight in camp in the year, would gladly spend a part of every week for many months in the year under military conditions with infinite benefit to themselves and to the community.

A great deal of the success of the scheme would depend upon the selection of the rowing "coaches," who would almost necessarily be sought among those University men who, after enjoying unique advantages for themselves in this respect, might be willing to devote a little time occasionally to extending them to others if they could see that they were thereby really assisting the cause of national defence. Rowing, when carried on as at the Universities, is unlike any other sport in the amount of physical drill and discipline which it entails during the whole time of practising, although, at the same time, it is an attractive form of sport. The spirit of emulation and competition which is fostered by the contests of the kind indicated above would accomplish results which would be impossible

by the mere perfunctory performance, however conscientious and painstaking, of monotonous military duties.

In the first article in this volume I set forth to the best of my ability the immense physical benefits which would be derived from the erection of "tennis halls" or covered tennis courts for athletic exercise during the winter months in or near the great cities of England. I need hardly say that by directly associating themselves with the erection and management of these buildings, which could be used alternately for "Morris tube" practice and drills, for lawn tennis and for social gatherings, the Volunteers could obtain great numbers of new members and increase their popularity and sphere of influence to an enormous extent by offering first-class winter recreation otherwise unobtainable as one of the benefits of membership of their corps. In fact, every tennis "hall" in the suburbs might be made a centre of active military influence, with the happiest effect on the defences of the country.

SECTION 2.

HOW TO PLAY LAWN TENNIS.

CHAPTER V.

THE "FOLLOW-THROUGH."

"It is not sufficient merely to acquire by practice some dexterity, but a man who aims at an art should have the power to think of what he does, to lay down principles and make apparent to himself and others how and wherefore he proceeds in this way or in that."—
GOETHE.

THE three kindred games of eye and hand—lawn tennis, golf, and billiards—have one great feature in common, in that in most strokes the man who is able to retain control over the ball for the longest time after he has struck it with his racket, club, or cue is generally the most successful player. It is the hardest thing to do in all these games, but in proportion as a player masters the art of it he can put the ball with certainty wherever he wants. One of the best examples of this fact is provided by any really good billiard-marker. If he be carefully watched when playing, it will be seen that (except when he wants to stop or screw back his own ball) there is hardly any preliminary pulling back of his cue before playing the stroke, but that the latter consists almost wholly of *pushing forward*, which continues long after the ball is struck by the point of the cue. We do not here mean the unfair push stroke once used in nursery cannons, but an ordinary stroke. The fact is that in all the three games the shorter the previous "swing-back" (consistent with getting enough impetus) of the racket, cue, or club, and the longer the follow-through, the greater will be the accuracy of the stroke. A good billiard stroke, as we

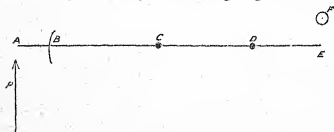
have said, consists almost wholly in following through. This is, of course, not so in the exceptional cases mentioned above of stopping the ball and of screwing back off it, but we believe that it is the secret of success in playing "winning hazards." James Braid, the champion golfer, provides a conspicuous instance of the truth of our proposition as regards golf. His iron shots are probably longer and better than those of any other player, yet the way in which he plays them is a revelation to a golfing novice. He never seems to swing his iron back above his elbow, and he puts the whole of his giant strength into the stroke as he strikes the ball and follows it through. It is in getting the "work" on at this part of the stroke that his skill lies. We have seen many an amateur golfer whose style of play in every other way was worthless attain to some success merely because he had grasped the importance of the follow-through. Mr. G. Peacock, who is, or was, well known in the South of England for the almost ridiculous accuracy of his putting at golf, once explained to me that the secret lies in drawing back the club as little as possible and making the stroke almost entirely forwards—i.e., following through. Mr. Paret has pointed out that the barrel of a gun is in reality embodied or concrete "*follow-through*." In lawn tennis real control over the ball and, above all things, certainty as to where it is going are obtainable in no other way. It is generally admitted that there is no Double pair alive as good as the Doherty Brothers. If anyone cares to watch R. Doherty's method of under-hand low volleying at the net (at which he chiefly excels, in the Double game), he will see that there is practically no swing-back at all, but that his stroke is almost wholly a "*follow-through*," as in the case of the billiard player quoted above. Therein lies the reason why with this stroke he puts the ball just where he desires. The ordinary player loses time with his swing-back, and attains to no certainty as to the spot where his return will go. The Allens also push their volleys at the net. H. Doherty's drive off the ground, both fore-hand and back-hand, is placed probably with greater accuracy than that of anyone else, and his fore-hand especially

is followed right through with his racket after he has struck the ball. He thus knows exactly where he is going to place it. S. H. Smith does the same on his fore-hand. But the best example of all lawn-tennis players is that of E. R. Allen. The natural eccentricities of his figure prevent him from doing much volleying overhead against good players and cause him to rely almost wholly on the placing of his drives off the ground. He places his returns of the ball in the same style and with as perfect accuracy as if he were shovelling coals off the ground into a cart. That is to say, he retains control over the ball with his racket as one would with a shovel over the coals to the very last moment. W. V. Eaves, who has been a conspicuously successful player, relies largely on his back-hand stroke, with which he practically places the ball wherever he desires it to go. This stroke, which is one of the prettiest that we have seen, has no "swing-back" about it to speak of, but is followed through with the wrist to the very end of the swing-forward; hence the player steers the ball into all sorts of unlikely corners at his pleasure. H. S. Mahony's strongest point was probably his back-hand. He did not appear to swing back at all, but he finished the stroke right out at arm's length, which is the case with very few people. So much for "following through" at lawn tennis. It would be idle to say that it is easy or that it usually "comes naturally" to a player. If it did, we should see a great deal more of it than we do at present. There is a great difference between the haphazard tap or blow which most players give the ball (with but a hazy idea whither it is going) and the firm follow-through of players who know the place where their return will pitch. The only way to learn the follow-through is to watch good players, and to think of it every time one plays a stroke, until one can do it with facility.

CHAPTER VI.

SHOULDER *versus* ELBOW.

ANYONE with a practised eye who watches a lawn-tennis player can tell at a glance whether he has mastered one of the great secrets of the game—to play every stroke from his shoulder and not from his elbow. The difference between a shoulder stroke and an elbow stroke (both on fore-hand and back-hand) is immense and apparent, because in the one case the player puts into the stroke the momentum of his whole body, whereas in the other case he only puts into it that of half a limb. Many people have been astonished at the ease with which two of the players who, *par excellence*, know how to hit from the shoulder—viz., S. H. Smith and R. F. Doherty—can go on playing all day, but the fact is that, when a man has learnt by swinging his shoulder to get the whole weight of his body into his drive, this stroke takes no more out of him than the other and is infinitely more effective. In order to make the matter clear it is necessary to say something about the mechanical theory of a lawn-tennis stroke, supplemented by the following diagram:—



A represents the player's shoulder, at which the force P is applied. B represents the point at which his

arm fits into the socket. His elbow is at the point C, his wrist at the point D, and the face of his racket at the point E. F is a tennis ball. All the lines from A to E form a lever of what is called the third class, of which the fulcrum is at B, and the weight applied at E, where the ball strikes the racket, while the power is applied at A. In this class of lever there is of course mechanical disadvantage. Now, when a good player makes a correct drive either on the fore-hand or the back-hand, the two halves of his arm, B C and C D, are used as nothing but connecting rods rigidly jointed together at the elbow, C, for transmitting the force applied at A to E. It is a very common thing to find people who unconsciously play their fore-hand drive in entire accordance with this theory, but it is, or was, most unusual to find a player who used his shoulder for both back-hand and fore-hand strokes. There is an immensely strong tendency to put power into the stroke from the elbow on the back-hand, and this is fatal to a free hit from the shoulder. The power of playing a back-hand drive, keeping the arm and elbow joint in an entirely subordinate condition, so as to do all the work with the shoulder, is the thing which especially marks the superiority of such players as W. V. Eaves and H. L. Doherty. In this respect the late H. S. Mahony's back-hand was excellent, and in marked contrast to his fore-hand. The part played by the wrist at the point D is noteworthy. When the force is properly applied at B the wrist serves mainly for steering purposes; but when the stroke is made from the elbow without swinging the shoulder, the wrist often imparts some extra force into the stroke in order to amend it. One of the reasons why golf is such bad practice for lawn tennis lies in the fact that the "approach shot" in golf requires the use of force from the elbow; whereas in lawn tennis the work should be done by the shoulder, and the elbow should be kept subordinate. I am greatly indebted to that excellent teacher of lawn tennis, Burke, for clear instruction on this point, which I never obtained from anybody else. The "follow-through" and the use of the shoulder appear to me to be the cardinal features of lawn tennis. If I

were asked to mention the things which rank next to them in importance, I should say that they consisted, firstly, in keeping one's eye wholly on the ball, and on nothing else, as it bounds, and as one strikes it; secondly, in using the greatest possible speed in striking a ball after it has bounced; thirdly, in "addressing the ball with the open arm" (*vide* the article on "Passing Strokes"); and, fourthly, in keeping far enough away from the ball when playing it. Many players watch their opponents, and not the ball, as they are making a stroke.

I have stated above that the Nice professional, Burke, was the only person who ever explained the shoulder business to me. Some of the amateur cracks recall a certain verse in Shakespeare to the effect that

The secrets of Nature
Have not more gift in taciturnity.

In other words, if inferior players want to learn anything from them it must usually be by "observation" alone. It is quite possible that this "closeness" on the part of the cracks may account to some extent for the small number of new rising players at present in lawn tennis. There is also undoubtedly a great deal of ignorance as to what sort of game a Single between two good players really is.

CHAPTER VII.

THE FORE-HAND DRIVE.

THE fore-hand drive is the most essential stroke in lawn tennis. If proof were needed of this, it might be found in the fact that the 1901 champion—viz., Mr. Gore—relied chiefly on his splendid drive for his success, and hardly volleyed at all. There is, however, an even better illustration to hand. For Mr. Gore has an excellent back-hand drive, whereas Mr. S. H. Smith, who has thrice reached the final of the "All Comers' " Singles, and defeated two American champions in the international match of 1905, wins nearly all his strokes from his fore-hand drive off the ground. Neither of these players is accustomed to win many aces either by service or by volleying. If any further proof be needed, it is merely necessary to point to Mr. Smith's many successes in various other parts of the country. People who have watched this player's game on good dry courts at the end of the season at Brighton and Eastbourne of late years, when his drive has often developed into something terrific, must have seen, firstly, that his stroke was unlike that of anyone else, and, secondly, that it was so effective that hardly anybody could stand up against it unless he could call in the aid of craft.

Mr. H. S. Barlow was a peculiar adept in the craft which consists in defeating hard hitting by short cross volleys, screws, and soft "drop" shots, because it is impossible for the driver to "slog" these strokes. This, however, is by the way. As the results of this style of driving have been so conspicuous in English lawn tennis of late years, and as the scalp of every Single first-class player with but one exception has dangled from the girdle of the player who has been the

master and exponent of it during the last three years,* it is clearly worth while to try to explain how it is done. There are three essential things about this drive which are all equally important. The first relates to what may be called (by misusing a golfing term) the stance. Mr. Smith obtains his terrific slogs of the kind mentioned above by planting the left foot very far in advance just before striking the ball. By this means he gets a "shove-off" with the whole weight of his body. The "Smith" drive is much harder than that of anyone else. It is, however, impossible to play it with any success unless particular attention is paid to the two other requisites—viz., the active swing of the shoulder and the timing of the stroke. As regards the first point, it is impossible, as I have previously observed, to throw the weight of the body into the stroke except by working the shoulder. Every drive should be played from the shoulder. Anyone who takes the trouble to play this stroke as I have described it will soon find out the importance of this part of it. Lastly, until a player has grasped the absolute necessity of striking the ball *at the top of its flight* immediately after it has bounced, he will never make anything of this particular kind of "Smith" drive.

The fact is that very few players outside the first class have any idea as to the meaning of speed in driving a ball immediately after it has bounced. If anyone has the curiosity to consider this, I advise him to watch the time of flight at which Messrs. H. L. Doherty, Smith, and Eaves drive the ball compared with that of the ordinary player. In fact, the speed in striking is an essential feature of the stroke. I might, of course, remark that unless the wrist and the elbow are kept rigidly under control, and subordinate to the shoulder, when the stroke is played, not only is there no possibility of accuracy, but the ball will probably land in the next field. The "Smith" forehand drive, like that of H. L. Doherty, Gore, Hillyard, and nearly all the best English players, is made with

* Written in 1902.

a "round-arm" and not an "underhand" swing. That is to say, the head and handle of the bat are usually parallel with the ground as the ball is being struck, whereas in the "underhand" drive the head is held downwards. With regard to the merits of these two styles of driving, the round-arm swing enables one to (1) strike the ball much sooner when it bounds high than in the other case, and (2) to start to run forwards sooner after making the stroke. *Both these advantages are very great in returning the service in a Double.* The underhand drive is made either with or without "lift" or "cut." R. F. Doherty and Eaves both play it without "lift," and consequently lose in severity what they gain in time. Hobart, the American player, and De Borman, the Belgian, play an extraordinarily effective "lifting" underhand drive, but neither of them can start to run in quickly after it, because the "lifting" action throws them back somewhat.

As regards the back-hand drive, which is of great importance in lawn tennis, the reader will find an outline of the subject in the chapter on "Passing Strokes" in this book, and also in the first article of a sixpenny work of mine called "Lifting the Veil," published by John Long.

CHAPTER VIII.

THE STOP-VOLLEY.

THE stop-volley consists in returning the ball as gently as possible short over the net in order that one's opponent may not be able to reach it in time. The stroke is most effective when the latter is at the back of his court. In the making of strokes at lawn tennis there are two distinct elements, which are sometimes combined, but which are more often directly opposed to one another. These may be indicated by the terms pace and place (*i.e.*, position). In a great number of cases, and especially in that of the stroke we propose to consider, the element of pace is absolutely contrary to the nature of the stroke, but, nevertheless, the majority of players outside the circle of the "cracks," and some of the latter also, play the game as if pace were everything and essential to every stroke. In other words, they display very little finesse, and devote themselves to hitting, although in the case of the stop-volley in general the less force is put into the stroke, consistently with getting the ball over the net, the better it is. It is, of course, true (in the opinion of the writer) that the element of pace is the most important thing at lawn tennis next to keeping the ball in the court. If a player does not possess the courage to hit, it is impossible to make up for this by any amount of tricks and finesse. For the chances to win strokes by hard hitting are far more numerous than the chances to win them merely by placing. But if the hard hitter cannot make drop shots, cross-volleys, "soft smashes," and the other strokes of the game of placing and finesse, he is liable to be beaten by a player who has a knowledge of it combined with tolerable driving powers. Messrs. Gore and Smith have achieved their conspicuous successes of late years almost wholly by hard hitting,

without any of the refinements of the soft placing game such as Mr. Pim used to exhibit in his best days. But this only shows once again that the "field" of talent at lawn tennis has been very small, and not that hard hitting is everything, although it is, no doubt, the chief factor in success, next to accuracy. A stop-volley is a volley which is made usually close to the net, either straight in front or across the court to either side, with as small an amount of force as possible, in order to win the stroke by position and not by pace. It is a stroke which is made almost wholly by means of delicate nicety of touch. That this is so may be imagined when we consider that the more acute the angle of a cross-volley, the better is the stroke. The wrist and hand are practically the only parts of the arm actively employed in this stroke. In playing a drop cross-volley from the fore-hand side, the ball is gently struck not with a flat but with a slanting bat, in order to put on as much cut as possible. The force is obtained by a gentle turn of the wrist. When a volleyer is possessed of a really good touch, and is playing a man who hits hard, the variations in cross-volleys which are brought off at the net off the hard drives are often remarkable. In fact, the cross-volley can be developed into a new game altogether of extreme nicety, although, unfortunately, there are not very many exponents of it at present. If there were, lawn tennis would be often much more interesting to the spectators than it is at present, when so much of it consists in plain hard driving and smashing. The power of making really fine cross-volleys appears to me to involve the same sort of sensibility of touch which is implied in the term "hands" used by people acquainted with riding matters. It is a totally distinct branch of the game from any other. It is a necessity, in order to play the stop-volleying game with any success, to be able to return the ball over the net from every altitude from a couple of inches above the ground upwards, and it is this variety, so different from the game of driving the ball off the ground, which puzzles many people, and prevents them from attempting the stroke.

The sport which appears to me most to resemble quick volleying at the net is snipe-shooting, which calls for the same lightning speed and accuracy of eye and hand. The best proof of this is that the one is the most excellent practice for the other, as various players doubtless know. A man who has been playing much tennis will often get one of his largest "bags" on the very first day he goes out after snipe, although nearly all other sportsmen have an opposite experience.

CHAPTER IX.

THE OFFENSIVE GAME.

IT is necessary to explain at the start that the prime object of this chapter is merely to deal with attack as opposed to defence, and not to treat of those "offensive" methods, so familiar to many of us, which may be included under the description of "bustling the umpire" and "putting a man off." Probably the best known of this kind of "offensive" game consists in pottering about between games and strokes, and in assuming a state of fortunate "unreadiness" when a really "warm" service comes over. With reference to the former, I recall an amusing incident which occurred some years back. A well-known twin was once playing a man who deliberately had recourse to a drink, a towel, and some sawdust at the end of every game. At last, at about the twentieth game, the twin's patience gave way, and with a knowing wink he shouted to a bystander, "The same old dodge, you see!" After that there were no more delays. The "unready manœuvre" recalls the plan of a gunmaker who explained to the writer that when shooting pigeons against crack Americans, on his own ground, if he saw a very fast bird he always held his fire, and abused the boy for pulling the string too soon.

To return to the subject of the attacking game, I may say at the outset that, with some apparent but not real exceptions, I believe the maxim of Napoleon, that "the army which stays in its entrenchments gets beaten," is as true in lawn tennis as in soldiering. In other words, in order to defeat a man who knows the game it is necessary to strive constantly to "force an opening," as it is called, by means of some stroke which is either sufficiently well placed or sufficiently

hard to be followed up to the net with a reasonable chance of success. *In every match the man who forces the game most by running up to the net will always win*, unless (1) there is a very great disparity between the back play of the two players, or (2) the player who goes up to the net does not know how to volley properly when he gets there. But unless a player is in good condition the forcing game is so exhausting that he will soon find himself almost "speechless and paralytic," and will have to stay at the back of the court.

It will, of course, be immediately urged that there are many first-class players, such as Messrs. Gore, Smith, and Boucher, who win their matches from the back line. But they do so chiefly because, before one can play the attacking game at the net with success, it is necessary to have at least some sort of defensive ability in hitting from the back of the court when driven into that position. Hence the game of the volleyer crumbles to pieces against that of a steady base-line player, unless he is able, when the need arises, to play a defensive game from that position. But the number of volleyers who can do this is extremely select. The Messrs. Doherty for a long time relied chiefly on their splendid back game, and only developed their volleying powers much later. Mr. H. S. Mahony, although a fine volleyer, was very defective on his fore-hand. Mr. G. W. Hillyard's driving from the back line is very good, and he is deadly "overhead," but his low volleying is not so certain. Mr. S. H. Smith is chiefly a base-line player of unique severity. Mr. Roper Barrett undoubtedly displays command of both styles of play, though his service is not strong. Mr. M. J. G. Ritchie volleys considerably more than was his wont, but tends to return to base-line play in a hard match.

It is needless to say that the attacking game, when properly carried out, makes the game infinitely quicker and more exciting, both to play and to watch, than when it is played from the base-line. There is no doubt that the chief feature in the attacking game consists in running in constantly on services which are sufficiently hard and well placed. I think it is generally admitted now that this manœuvre is capable

of being used with great advantage against all classes of players.

In the opinion of the writer, the secret alike of pace and placing in the service consists primarily in working the shoulder socket. The freedom with which one is able to do this determines the pace of the service. This shoulder swing (which I can only describe by saying that it is a swing from the very top of the shoulder) is essential (1) to place the service with freedom from side to side of the court at pleasure. This power is absolutely necessary in order to make a success of "running-in" on the service. For when one's opponent takes up his stand to cover one side of the court, then is the time to bring the service into the other corner, if one can do it. (2) This swing is also essential in order to conceal from the opponent the direction which the service will take. When the arm is working freely from the shoulder joint it is most difficult to tell where the service will pitch, provided the server can vary the placing of it. Some players serve monotonously into one place, or else, when they do vary the place, the stroke loses pace. It is most necessary to select the exact spot where the serve should pitch, and to aim for it. In attempting to "run in" on the service speed is, of course, nearly everything, and the closer one can get to the net after delivery the greater by many degrees will be the chances of killing the ball on the volley. This point is three-quarters of the battle. It is, of course, highly necessary to guard against foot faults. When the server gets really close up to the net after his service and manages to reach the return at all, it is, in my opinion, about four to one that he will win the stroke.

It is worth while to call attention strongly to the fact that the thumb can be made use of to great advantage in suddenly altering the direction of a service. The majority of players neglect the use of the thumb altogether for this purpose. The player, for example, is about to serve into the right court, and perceives that his adversary is guarding the middle line; a slight working of the thumb, which is pressed flat along the racket for the purpose, will suffice to discharge the ball along

the side line out of reach. This can be done even better if the server stations himself a couple of yards to the left of the middle of the base line, in which case the ball comes at a much more awkward angle.

It is well known that in most battles there comes a psychological moment which decides the fate of the day. In my experience this moment usually comes in lawn-tennis matches between good players when each of them is so exhausted that *it goes against the grain to follow a good return up to the net and assume the attack*. Then is the time when the man who continues to force the game wins it, and when the great differences in the courage and stamina of players, usually invisible, become manifest. Some players may be inclined to ask why this chapter contains no account of the "American" services as a feature of the "offensive games." To these I would reply that in lawn-tennis literature we have lately had such conspicuous examples of the ensuing results when a writer attempts to explain to others something he does not understand himself (examples which recall an expression of the elder Carlyle concerning *a fly reading in tar*) that I have no desire to afford another such example. An instance of the high value of the American service was afforded in last year's international match, when the Americans were within two aces of defeating the redoubtable "Us" themselves by means of it.

CHAPTER X.

"PASSING STROKES."

AT the present time the value of "running in" to the net on one's service as an attacking manœuvre is almost universally admitted by the English first-class players, and most of them practise it when the necessity arises. In fact, almost the only notable exceptions to this rule are Messrs. Smith, Boucher, and Roper Barrett. The extraordinary force and accuracy of these players in their base-line play help to balance the advantage which is undoubtedly lost by not "coming in" on the service. If even a weak second service be followed right up to the net, it is astonishing how often even good players are thereby "flurried" and return the ball either into the net or within reach of the volleyer. The value of "running in" is further greatly increased by a practical knowledge of the "American service," although the Championship of 1905 showed that such knowledge is not essential. In 1904 we were deluged with literary instructions in the method of playing this service by a writer who, on paper, had a complete mastery of it; but I do not think that much light was thrown on the matter.

A little observation of the actual service of the young American player W. C. Grant, whose service is much the strongest part of his game, would probably be of value to most players. Having regard to the fact that "running in" is a thoroughly well-established manœuvre among the crack players, and that it is one which they use with the most conspicuous and constant success against inferior players in the provinces and elsewhere; and, further, that when it is combined with

a really correct American service its success is likely to be even greater than at present, I have here endeavoured to the best of my ability to set out with diagrams the strokes which, according to my observation, the striker-out can use to pass the server as he comes up to the net, and to explain the chief things which must be done in order to "bring off" these strokes successfully. The cross in each diagram shows the probable position of the player who follows up his service to the net.

Stroke No. I.

In the first case, we will suppose that the server, standing at the point A (Diagram 1), and using the common manœuvre of putting the ball to the striker's back-hand at the point B, runs into the net immediately afterwards. There are in the ordinary way three strokes at the option of the "striker" in order to pass him at the net. In the first place, he can put the ball anywhere inside the area marked C, which is on the back-hand of the server as he runs up.

Now, this stroke, when properly done, is almost bound to win the ace outright, because it is in the nature of a "clean pass." For after the server has started to run up the centre of the court in the direction of his "serve," which is the most advantageous thing to do, it is practically impossible for him suddenly to change into another "plane" in the direction of the area C. The striker must usually do the following things:— (1) He must keep his eye on the ball at the time of striking; (2) he must stand nearly half round, so that he is almost facing the left-hand side-line, with his feet in a line with the ball; (3) he must in this position bring his right shoulder as far forward as it will go; (4) the stroke must originate *solely in the shoulder*, and the motive power must be produced by bringing the shoulder back to its natural position; (5) the arm must play an entirely subordinate part throughout; (6) the thumb should be placed up the handle of the racquet; (7) it is absolutely essential

(though most difficult) that the stroke should be carried right through to the finish, at arm's length, by means

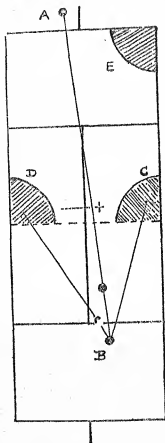


Diagram No. I. Strokes 1-3.

of the shoulder only. The long finish is the most important and essential thing in the whole business, for by this means alone the ball will travel quickly out of

the server's reach after it has touched the ground, otherwise he may have time to reach it.

The striker will find it useful to remember that there is no need for any great haste or force about this stroke, because (1) there is always an abundance of time to make it while the server is running up to the net; (2) if the stroke be properly directed into the area C it is certain that his opponent will not be there at all when the ball bounces, but will be "clean passed."

It is, of course, obvious that this stroke can only be made off a service which is (1) rather slow and (2) placed close to the centre line. It is, in fact, usually played off a short second service, which is common enough in a long match when the effects of fatigue show themselves.

Stroke No. 2.

I next come to the stroke of which Dr. W. V. Eaves is the best exponent whom I have seen. The serve is played down to the striker's back-hand as before, and is followed up by the server. The striker clean passes him by a slow but extremely firm back-hand stroke "to the off." The stroke into the area C was made, as we have seen, by a "pull round" from the shoulder. In the present case the essence of the stroke lies in an extreme steadiness and rigidity of the arm (recalling "the surgeon's hand" mentioned by Mr. Whitman) without which the shoulder cannot take any part in the stroke at all, although it is necessary that it should take the predominant part. Before making the stroke the player should turn slightly round, so that he directly faces the area D. By far the best way to learn this stroke is to watch Dr. Eaves, who has made a speciality of it. The way in which he strikes the ball, together with its subsequent flight, shows clearly that the secret consists in making a shoulder stroke (and not an arm stroke) at this apparently awkward angle. In the case of this stroke, as in that of the previous one, there is no need for any particular force, as it is a passing stroke. Firmness is the chief requisite. The great

thing is to try to get "shoulder work" into this stroke (and not merely arm work), because when this is done

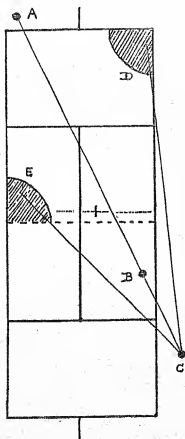


Diagram No. 2. Strokes 4 and 5.

the momentum of the body does the rest. This is an exceedingly useful, though rare, stroke.

Stroke No. 3.

The third and last stroke from the point B with which I shall deal consists in a back-hand lob over the head of the server, as he comes up, into the area E in the back-hand corner of the base-line. It is important for the striker to watch the ball alone, to pay no attention to the movements of his opponent, and to "loft" the ball as high as possible. The lob as a defensive stroke is somewhat neglected in English single play at present, and, moreover, really high lobbing, such as is practised by the Americans, is not often seen over here, except in the case of the Dohertys. This is because the Americans often lob the return of the service in Doubles, when we play a bolder game by driving it. If the point happens to be an extremely important one, and the striker does not like to venture the two somewhat delicate strokes I have just indicated, he cannot do better than try a high lob, running immediately afterwards right up to the net if and when he sees that the ball will fall in court and that his opponent cannot get to it before it has bounced. The odds are then at least four to one that he will be able to volley the return if he possesses a fairly long reach, and probably thereby win the stroke outright.

Stroke No. 4.

In this case the server delivers the ball into the fore-hand corner of the right court. The striker-out returns it when it is at the top of the bound, at the point C (Diagram 2). The stroke which is the subject of this diagram is one of the most effective of those in the *répertoire* of Mr. H. L. Doherty. It consists in a fore-hand drive, which is outside the court nearly all the time of its flight until it touches the ground. The chief points to be noted about this absolutely clean passing stroke are, firstly, that the stroke must originate solely in a shoulder swing; secondly, that one must begin the stroke with what is called "the open arm"—i.e., that the front part of the arm (on the same plane with the

palm of the hand) must be turned to face the ball; and, thirdly, that one must "address" the ball before playing it. One of the chief secrets of Mr. H. L. Doherty's almost unparalleled success lies in the fact that he carefully "addresses" the ball every time that he plays a stroke off the ground, both on the fore-hand and back-hand. By saying that he "addresses" the ball, I mean that he goes through a preliminary movement before striking it, which consists in turning the "open arm" to it, and carefully measuring the stroke beforehand. This is absolutely imperative in order to ensure the great accuracy on the fore-hand which is necessary to pass one's opponent, by driving the ball into the area D. It is, of course, most essential in this, as in every other stroke mentioned here, to watch only the ball at the time of striking it. Disregard of this rule means certain failure.

Stroke No. 5.

This consists of a clean pass into the area E by means of a fore-hand drive. In order that the stroke may score the point outright, it is usually necessary that it shall be made off a serve which has pitched close to the side-line near the point B. It should be played slowly and deliberately, as there is plenty of time to do so, and as the essence of the stroke consists in playing it at such an angle to the server running in that he will be beaten by the *placing*, and not by the *pacing*, of the return. The player should pay no attention to his opponent, but should devote all his attention to steering the ball slowly into the area E.

Stroke No. 6.

I now come to the left court. The fore-hand stroke into the area D (Diagram 3), to which I desire to call attention, is not often made, but it is particularly useful, especially in a Double. One of the few players who made a study of it was G. H. Grummit, who played for Cambridge in 1895, and who usually returned the service in a Double "out of harm's way"

in this manner. C. G. Allen is also an exponent of it, as may be seen by the fact that when he and his

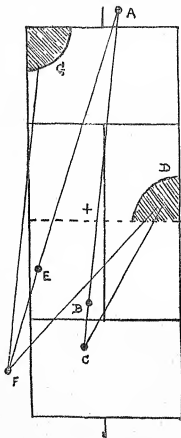


Diagram No. 3. Strokes 6-8.

brother are opposed by any first-rate pair the latter nearly always cover this point when running in on their services against him. It is necessary to screw

one's self round and play the stroke slowly, with a kind of flick of the wrist. G. C. Ball-Greene is a past master at it, as at all similar passing strokes which involve delicate placing.

I am able to speak with more confidence about the next stroke illustrated in the diagram, because many players, by serving to my back-hand on the right-hand side of the right court for the last ten years (as I am left-handed) have afforded me plenty of opportunities for studying the question. Let us suppose that the server, standing at A or anywhere along the left-hand half of the base-line, serves a ball into the corner of the left court at the point E or anywhere close to the left-hand side-line of the left court. There are three good defensive passing strokes which a player ought to have sufficiently at his fingers' ends to be able to play them indiscriminately, with some degree of safety, to defend himself against a hard, well-placed serve, followed up closely to the net by his opponent.

Stroke No. 7.

Firstly, he must rely, before all else, on passing his opponent by the back-hand drive straight down the left-hand side-line. In the diagram, for purposes of clear illustration, I have rather exaggerated the angle of the drive to the side-line, for it has often to be played along the line absolutely parallel with it, when the ball does not bounce outside the court. This stroke is the one in which R. F. Doherty is *facile princeps* among all the players I have seen. In order to play the stroke really effectively, it is necessary (1) to turn nearly half round, so that one is almost facing the side-line. By this means one is enabled to swing back the bat past the body in order to obtain the necessary impetus for a hard hit, and a very long follow-through. Unless one turns half round thus, the swing back of the bat is blocked by the body. The bat must be grasped firmly, with the thumb up the handle, and with the head of the bat never lower than the elbow, and, most important of all, bent back considerably behind it. Having carefully observed all these details, the player

should direct his whole attention and will to the difficult task of following the stroke right through, and finishing it at arm's length with the head of the bat at right angles to the extended arm. It is only by keeping the head of the bat "laid back" thus at the finish that one can make the ball "travel" with this stroke, which is one of the most useful and effective passing strokes in the whole game.

Stroke No. 8.

Secondly, the striker can make a back-hand drive across the court into the area D in the way already described in the case of a stroke from the left corner of the right court; but in this case there is much more need and scope for hard hitting in order to bring off the back-hand drive across the court. A good deal more pace on the ball is necessary to pass the server in playing the ball from F to D than in the former case.

Stroke No. 9.

Thirdly, the ball can be lobbed over the server's head into any part of the area about the base-line; but, if one lobs, it must be with a vengeance, in order to get the ball out of the server's reach.

There is one most important feature in the successful execution of all the strokes without exception set out above. I refer to the absolute necessity to stand far enough away from the ball in playing a stroke to avoid any cramping of one's freedom of action. If anyone cares to watch the very best exponents of the game, he can soon satisfy himself that one of the chief secrets of their success lies in standing far enough away from the ball to allow plenty of room for the swing of the arms.

Some reader will doubtless remark at this point, reasonably enough, that nothing has been said about passing strokes off services which pitch about the middle of either court and are of very common occurrence. Provided that services of this kind have enough

pace on them it is probably true that the server neither wins the ace off them nor loses it (by being passed) so often as in the case of services in the corners of the court. When the ball pitches the player has to be guided by the position he has previously taken up as to whether he shall return the ball on the back-hand or the fore-hand. This position will, of course, vary greatly according to his idea of the spot for which his particular opponent is likely to serve. But when this point has been decided, the stroke he makes (if it be a reasonably good one) will either be one of those set out above or one which approximates as nearly to one of them as the position of the man at the net will allow. It is often good policy to serve into the middle of either service-court by way of a change. The above observations form a brief attempt to outline methodically the "passing" returns of the service at lawn tennis.

I apprehend that no player of even a moderate experience who has taken the trouble to read the foregoing remarks will be rash enough to contradict the assertion that the rotatory action of the shoulders used in making stroke No. 8 is an entirely different thing from the action of the shoulders in playing stroke No. 2. Or, again, if one takes stroke No. 7 down the left court side-line, it is obvious that for its successful execution the rotatory movement must be reduced almost to zero. I am here only stating elementary facts which an observer can verify for himself in five minutes at any first-class tournament. Consequently, I shall scarcely be believed when I say that in two books on lawn tennis produced by three players (Messrs. W. Baddeley and R. F. and H. L. Doherty), who have between them won the Championship of England a dozen times, there is not one word that I have been able to discover which would enable a novice to grasp the facts about shoulder rotation in the back-hand stroke.* Under these circumstances, I am not greatly surprised that Mr. Parmly Paret (although once the runner-up for the American Championship) exhibits a similar lack of information in his book, and that Mr. Vaile has followed him.

* For further details on this point see "Lifting the Veil," chap. 2.

But the fact that players of such consummate ability and experience as the three first-named should have been incapable of explaining their own principles of play recalls in a very striking way an anecdote told by William Hazlitt (who was himself much addicted to racquets) concerning a famous racquet player in the early part of the last century. It appears that the man in question, a professional player, had a wonderful "half-volley" stroke of his own, but the fullest explanation he was ever able to give concerning it was that it was "between a volley and a half-volley."

The Messrs. Doherty say in their book that the back-hand stroke (indefinitely) should be finished with the racquet high in the air, thereby confusing the actual finish of the follow-through with a gallery "flourish" after the finish.

The chief reason why success in the game at present rests mostly with a small handful of "cracks" lies, I believe, in the fact that very few players outside of London understand the advantage of habitually following up the service to the net, and fewer players still have a clear and definite idea of the various strokes which may be attempted in order to defeat that manœuvre. When their knowledge increases in this respect, and when the American services come more into vogue, we may, I think, look for a general improvement in the standard of play, a wide increase in the number of players throughout the country, and a much greater interest in the game on the part of the general public. I may remark that anyone who has seen or played against the remarkable twists which some of the first-class American players can impart to their service, especially on a wet grass court, will readily understand that the difficulty of making the "passing" strokes dealt with in this chapter would be very considerably increased.

CHAPTER XI.

PARMLY PARET'S BOOK.

I FANCY that most of the English tournament players, after reading Mr. Paret's book itself, or the extracts from it which this chapter contains, will be inclined to agree with the present writer that it is one of the most compendious, readable, intelligent, and pernicious works on the game which has yet appeared. I believe, however, it will be generally admitted that the chapter on "The Physiological Side of the Game" contains a good deal on the subject of diet and training which embodies the personal experience of "an old tournamentary hand," and, with certain reservations, is of value to lawn-tennis players. The book also contains the results of a great deal of work on the part of its author in collecting interesting details about the "past and present" of the game all over the world. But the theories and advice on the tactics of the game in the first and third chapters of the book are of such a character that it appears to me advisable, in order that Mr. Paret may here receive due credit for that which *is* of value and interest in his book, to deal with that side of the work first. I may remark here that, whenever possible, it is never immaterial to glance at the photograph of any author one reads, and, fortunately, Mr. Paret has afforded us two or three opportunities for doing this—for instance, at page 224.

We are indebted to Mr. Paret for pointing out in his opening chapter that lawn tennis, when played properly, is really a sort of *outdoor chess*, with various "gambits." "The game presents all the same elements of attack and defence, of finesse and coup,

as chess does." He says elsewhere that the Ancient Romans were the first people who are known to have played tennis. In this I think he is wrong, for readers of the "Odyssey" will remember that Ulysses found Nausicaa "knocking up" with her friends on the sand courts at Corfu (near what is now called "one-gun battery") when out for a sort of laundry picnic. If I remember rightly, it is close to what is now officially called *ὄδος φαιακῶν*. The mention of "one-gun battery" and Corfu recalls the fact that the former name was, of course, given during our occupation of the island before Gladstone deprived us of what Napoleon well called "the key to the Adriatic." One of the minor consequences of that loss is that 80 per cent. of the luckless British tars who are always in their turn unavoidably cooped up on the rock of Malta get Malta fever instead of finding refreshment among the citrons, the roses, the oranges, and the six million olive trees of the "Island of Olives." The island and its people have been greatly neglected in every way since we abandoned the supervision of them. If Trieste ever falls into other hands we may have pretty good cause to rue it, unless we have previously repurchased the "Island of Olives" from Greece, which cares very little about it.

It is interesting to learn that modern lawn tennis was invented by a British officer, and that the first set of official rules was promulgated by the Marylebone Cricket Club! Who knows but what lawn tennis may ultimately find its way back to its original cradle at "Lord's"? There are no disturbing trains by *that* ground. Turning now to Mr. Paret's remarks on food and training for lawn tennis, it is, I think, quite clear that Mr. Paret has written his book in an atmosphere of active and intelligent interest in all physiological questions, and that he himself has bestowed no little attention on the subject. It is refreshing to learn that in America there are such people as "scientific students of the relation of foods to human energy," a relation which is just beginning to be studied "on this side" also. If we had a few of them over here to publish their conclusions, they would, I fancy, tend

to produce a considerable reduction in the national butcher's bill.

Mr. Paret's remarks on the value of sugar as a "fuel-food" for persons taking much outdoor exercise are curiously corroborated by my own experience. He says that after a hard match he has a craving for sugar, that the trainer of Cornell University says that "men in training seem to crave sugar," and, lastly, that "men making constant physical effort crave either sugar or alcohol. The one seems to take the place of the other, and a man does not want both." There seems to be plenty of *camaraderie* among American players, for we learn that between the sets in a Single match the "player's friends hustle him into a dressing-room, and rub him down thoroughly, so that when he goes out for the next set he is materially refreshed."

Few players will agree with Mr. Paret that "two or three cigars a day are hardly likely to affect a man's physical strength"; but when he says that "big lunches *slow up a man's activity*" he touches the obstacle which prevents quite half the ordinary run of players from distinguishing themselves. Mr. Paret suits his advice to all classes of men, and consequently we find training rules for "moderate drinkers" and even for "*excessive drinkers*." The general effects of lawn tennis on the temperament and character are described in probably the most eloquent passages in his book: "Although the heart of one that has not been accustomed to any unusual tax would 'flutter' or stand still at the crucial moment of some great strain in after-life, the heart of the tennis player would go on about its business in the ordinary way, because it had become used to excitement and physical strain. . . . The experienced tournament player learns to keep his mental equilibrium and steady his nerves under even the most intense excitement. . . . When steady nerves are needed, when a powerful heart or strong lungs are necessary, the tennis player will be prepared; when he lies in danger of death from sickness, his greater endurance and vitality will pull him through when another man's light will flicker and go out." He also says that lawn tennis tends to produce

"all-round athletic ability" and is "no mere one-sided strain." The chief point on which I should join issue with Mr. Paret in his remarks on lawn-tennis food may be gathered from a single sentence of his—viz., "there must be some oasis in the desert of plain food, early hours, and no smoking." I do not believe in any such "desert." On the contrary, what I say is that tournament play is so severe that (1) a man can "play off" and digest the richest foods ever cooked; (2) a player getting through a hundred games or so in a day positively needs "pampering" with the most luscious foods he can obtain, always provided that he eats every sort of food with caution until play for the day is over. In other words, I believe a man should eat whatever he finds he really fancies, and that very often the richest pastries, creams, soups, entrées, &c., afford the best results as "fuel-foods" (provided one takes only as much as one really wants), especially *after* hard matches, and when further matches are in store, as constantly happens. The combustion of tissue is so enormous sometimes that rich foods are undoubtedly necessary to repair the waste. I should imagine it must have been after a pretty thorough "oasis in the desert" that Mr. Paret, as he tells us, lost 8½lb. in weight during one match!

It is all very well for Mr. Paret to assert that, in spite of the theories of the vegetarians, meat is a necessity to a lawn-tennis player." On the other side there is the testimony of the late Society physician, Sir Henry Thompson, who was never himself a vegetarian, that any such idea was a "vulgar error."

I now come to Mr. Paret's theories on the tactics of the game, and here, indeed, it must be confessed

The darkness deepens and the daylight dies.

In describing the history of the game in England, Mr. Paret says "there came a day when the steady return of everything off the ground was the winning game, and then *E. Renshaw had his innings.*" The suggestion that one of the most finished and consistent volleyers we have yet seen was a sort of Gore or

Lawford will seem droll to those who remember his powers. It would have been difficult decisively to beat by mere ground play the Pim of 1892 as he did in Dublin. It is true that he was "safe" (or accurate), but he was also a brilliant volleyer.

Mr. Paret also makes some very remarkable statements on the question of the length of one's returns when about to "assume the offensive." He says (p. 147), "*It is open to question whether length is useful for attack among experts of the top class.*" And again he says, "*Among players of the highest skill, length limits the power of the attack*"—i.e., that the great thing to do before running up to volley is to *play a short-length stroke*. It is not surprising that a player who shows such ludicrous misconception of the powers of a first-rate back player (such as Smith, Boucher, or E. R. Allen) should also write "speed alone will never win from a man of the top class." It depends upon what one calls "the top class." S. H. Smith made good enough use of it at Wimbledon in 1905 to beat decisively two champions of the United States, and subsequently (at Edgbaston) the best Australasian. It is, I think, possible, by "reading between the lines" of Mr. Paret's book, to discover fairly well, without having seen him play, the sort of tactics which he himself adopts. His unfeigned eulogy of "a safe player who never kills a difficult ball, and always has a deep lob ready for his defence"; his advice to a man always to lob if the ball is returned to the base-line and one's opponent is at the net (typical pat-ball play); and his sweeping statement that "brilliant players fail more often than they succeed"—all show pretty clearly his methods of play. If any further evidence be wanted, it may be found in two extraordinary statements in the third chapter—viz.: (1) "*With both players at the base-line, it is frequently a waste of strength, as well as an additional source of error, to use a fast ball or a low ball*"; and (2): "*If the opponent is at the base-line, and the time not ripe to begin your own attack, it is generally wiser to throw aside both speed and height, and play only for length. Providing the opponent is not in position to volley*

the return, there is no possible object in keeping the ball close to the net." It is this sort of thing which makes one reluctantly admit that, in spite of the good features of Mr. Paret's book, his advice is mostly disastrous. In spite of all that can be said about the monotonous game of our best base-line players, it is certain that A. W. Gore, for example, has practically proved over and over again that to hit hard and "go for one's stroke" is a hundred times more successful in the long run than this wretched, finicking, ineffective style of play.

The plain English of the last extract is, "*Provided your opponent is at the base-line, there is no possible object in making a good drive.*"

Mr. Paret also says that "both volleying and ground strokes have now had their day, and even development is the winning game." Although it is no doubt true that "even development" is the ideal thing, I dare say that Mr. Larned and the rest of the American team who played S. H. Smith will now be able to assure Mr. Paret, from their own experiences, that ground strokes have *not* yet had their day. S. H. Smith defeated Holcombe Ward without the loss of a set in the first round of the Championship, and he twice defeated Larned, winning six sets to one.

In the second chapter of his book Mr. Paret sets forth his theories of lawn tennis in detail with great lucidity, and it is safe to say that never before have such theories been broached, nor will they be again. At page 20 he says: "Just as Renshaw laid the foundation for the English game of to-day, Wrenn did the same service for Americans of this generation. To Wrenn, and in a smaller degree to Campbell and Neel, we are indebted for the theories on which our modern skill is based. It was Campbell who first learned to serve to the centre of the court to reach the net in safety. [It will be observed that Mr. Paret here implies that to serve down the centre line into either the right or left court enables one to "reach the net in safety." He overlooks the fact that when one's opponent has a fine fore-hand drive, it is safe enough to serve down the centre line into the *right* court, but usually fatal to do so into

the left court. Mr. Vaile copied this blunder and illustrated it by a diagram in the *Field* last spring.]

"It was Neel who taught the world to volley to the centre, until there came a sure opening for an ace by volleying or smashing across court. [The plain English of this is, that it was Neel who taught the Americans to volley the ball into the only place where one's opponent was sure to be able to reach it. To suggest, as Mr. Paret does here, that a man who has gained position at the net should under any circumstances play the ball into his opponent's hands in front of him when it is open to him to cross-volley to either side is such an utter absurdity to any experienced volleyer "on this side" that it need only be stated to be immediately scouted.]

"It was Wrenn who perfected the whole modern theory, justified by practical success, that the first return and other ground strokes of a volleyer should be played to the middle of the court, so that he might reach the net in safety."

When Holcombe Ward, the present American champion, played S. H. Smith in the first round of the English Championship in 1905 it appears that he duly played his first ground stroke into the middle of the court, but that before he could "reach the net in safety" his opponent, finding the ball obligingly put ready to his hand, used his drive to end the rally at once. If Mr. Paret himself had habitually acted on such astounding nonsense, it is safe to say that he would never have reached the challenge round of the American Championship. Nor do I think that he seriously believed it himself, but I believe that the habit of throwing dust into the eyes of one's opponent may become so confirmed that at length one does it half unconsciously, even in literature.

Let us suppose that a man follows up his service to the net. Is the striker-out to continue to make his "first return" into the middle of the court? If so, he will be popular with English volleyers. The suggestion that a drive to the centre helps a man safely to reach the net can be seen by anyone who cares to watch Doherty, Smith, Boucher, Gore, Ritchie, Hillyard, Eaves,

Barrett, and E. R. Allen to be *the direct opposite of the fact*, because the ball is thereby played into one's opponent's hand. "Undoubtedly," continues Mr. Paret, "most winning strokes must be made to the sides of the court, but *in the middle lies safety*; and it was Wrenn who first demonstrated the value of this *corner-stone of modern defensive play.*"

There is now clearly a fine chance for one of the four American players who came over here last summer to make History (with a capital H, as the French write it), and to go down to posterity as the first man to break the news to his countrymen that it is a fundamental error at lawn tennis to *return the ball into that part of the whole court where it is easiest for one's adversary to deal with it.*

It is so far from the truth to assert that "in the centre lies safety" that in all cases in which one's opponent has a powerful fore-hand drive it would be more correct to say that *in the centre lies destruction*, if one comes up to the net on such strokes.

Mr. Paret continues: "Just how the American methods of to-day differ from the English, therefore, and just what may be considered the latest development of the game, may be seen here. American experts have learned to drive to the centre of the court *for an opportunity to run up close to the net in safety*, and then to *volley* to the side-lines when the opening for a winning stroke comes. The closer American net position permits sharper angles in these killing strokes, too. The English plan differs from this in that *the players come only to the middle of the court*—W. Renshaw's favourite position at the intersection of the lines—and *volley from there, generally under-hand*, because the ball has already begun to drop when it reaches them. They place to the sides, as a rule, before coming in, too, and *depend on their position farther from the net to protect them from being passed through the greater openings they allow the antagonist.*"

It is wholly contrary to the fact to assert that the English volleyers come only to the middle of the court. I know plenty of players who only wish they did, and that they "generally volleyed under-hand."

The foregoing extracts are taken from the first chapter of the book. In the third chapter, on "Placing and the Strategy of the Game," Mr. Paret amplifies the same pernicious theories at great length and in the most (apparently) logical and convincing manner. I know very well that the long-suffering reader will be tempted to exclaim at the length at which I have treated this subject, but my reply is that, when theories of this kind are put forth in such a detailed, lengthy, and specious style, the only possible way to get rid of them is to deal with them in detail by chapter and verse. But how anyone could take so much trouble to enunciate such elaborate nonsense is more than I can understand.

I assert without fear of contradiction that many of the extracts set out in this chapter will strike the average English tournament player as the strangest of all the strange nonsense that has ever been written about lawn tennis. The subject of lawn tennis seems at present to be regarded as a "happy hunting-ground" where literary vagaries or imbecilities can stalk unchecked. On page 141 Mr. Paret begins, "The instant the opponent comes forward with the intention of volleying, a passing stroke or a lob becomes necessary and *length is only useful for the lob.*"

To disprove this assertion, I refer my readers to strokes 4 and 7 in the chapter on "Passing Strokes" in this work, in both of which *length is absolutely essential*. He goes on: "In passing, *it is important that the stroke should be short*; in fact, the sooner a passing stroke drops after crossing the net, *the better are the chances for its success.*" As regards the two strokes mentioned above, and many others, this is the exact opposite of the truth.

If a passing shot actually does pass a man, the place where it drops in the court (provided it *is* in the court) afterwards is immaterial. In *very* many cases the only manner in which an expert volleyer with a long reach can be passed consists in a very fast low drive, which by reason of its speed *necessarily pitches very far back in the court*. *Why* Mr. Paret thinks it ought to pitch near the net, Heaven only knows. He then makes the

following remarkable statement:—"Safety play" (*i.e.*, the Paret safety play) "in lawn tennis requires one to avoid all cross-court strokes, and so far as possible to make all returns parallel with the side-lines, keeping the ball always in front of you. If the opponent's drive is far to the right of the court, the safe return is deep down the right side-line, *converging slightly towards the centre*" (*i.e.*, converging slightly into your opponent's hand). "This will permit the defensive player to return to his safety position at the middle of his own base-line" (always provided one's adversary does not meantime bang the ball, kindly sent ready to his hand, out of one's reach). "The same is true of the other side of the court. If the opponent's drive comes straight down the centre, and you are not yet ready to assume the attack, it is safest if returned directly in front of you with as much length as possible. To place to either side serves no defensive purpose, and increases the possibilities of the opponent's next attack."

Mr. Paret gives no hint of having realised that lawn-tennis opponents are made of flesh and blood, with lungs and muscles liable to fatigue, and nerves liable to shock. He conceives of his opponent as a kind of automaton to whom "distance is no object" in running, who is equally good at driving both on fore-hand and back-hand, and who, after being coursed like a hare from side to side, as happens every day at lawn-tennis tournaments, nevertheless keeps his breath and nerves in such perfect order that he can be relied on to make the difficult passing strokes (which increase in difficulty every foot backwards in the court) down the side-lines from a hard hit, good length, diagonal drive. Such a being may exist in Mr. Paret's imagination, but he exists nowhere else. He also takes no account of the fact (constantly confirmed in tournament play) that at least seven players out of ten are considerably stronger on the forehand than on the back-hand, and that not more than one player in fifty is equally good on fore-hand and back-hand. Consequently, in actual play there is almost always an advantage to be gained by driving the ball out to

the side where one's antagonist is weakest, in order that one may gain position at the net. The passing shots, of which he speaks as if they were a matter of course, are so difficult that, provided the diagonal shot be of good length, and *above all* of good pace, the odds are heavily on the volleyer against the best base-line players. The fact that Mr. Paret altogether omits to discuss the effect of *pace* on his theories shows that his ideas of ordinary driving are limited to a finnick-ing, patting style of play. "It is a common error," he goes on, "to suppose that all slow returns are weak. It is frequently a waste of strength to use a fast ball or a low ball." He here advocates a patting sort of game, which *always goes down before a first-class driver*. Let us suppose that two players are running each other about from side to side of the base-line, and that one of them, taking Mr. Paret's advice not to waste his energy, plays a slow ball up the centre of the court. In playing against a really good English back-player the rally would often end there and then with a severe drive from the latter, banging the ball out of his opponent's reach. But in any case it may be pointed out that (1) if one's opponent can volley he probably will not wait for the slow bounce, but will volley it and gain position at the net. (2) In any case, the stroke being patted back into his hand gives him *invaluable breathing time*. (3) It gives him the chance to select *at his case any place he desires* for his return, so that after choosing the weakest spot he can go to the net if he pleases. (4) If, as has been said, he possesses a "murderous fore-hand" (the commonest form which tennis talent takes), he will end the rally "right away."

These are not theories. They are facts which happen every day. "If the opponent is at the base-line," says Mr. Paret, "and *the time not ripe to begin your own attack*, it is generally wiser to throw aside both speed and height and play only for length." We know enough about the game over here to know what this means when put into practice against a good driver. By way of clinching his bad advice, Mr. Paret remarks of people who have the pluck to hit

hard and go for their stroke that "they are worshipping false gods, and their errors prove their undoing."

On page 146 Mr. Paret says: "Recently developed American tactics make it impossible to volley from as far back as the service-line. The modern player is forced to play his ground strokes from behind the base-line, and his volleys from in front of the service-line. In fast play this can be conservatively set at fully 8ft." On this it may be pointed out that the great charm about lawn tennis is the infinite variety in the matches against able players caused by the varying degree to which one's opponent forces the game. To attempt to dogmatise in that fashion about modern play is to ignore the ever-recurring effect of the *personal equation* in upsetting preconceived systems of tactics. It is usually a man's own fault if he has to "play his ground strokes from behind the base-line," and a good volleyer in the rough-and-tumble of a hard match will have very many opportunities for volleying from the service-line as well as at the net, especially in long rallies.

On page 148 more remarkable statements follow:—

"One of the most recent developments of *American skill* at lawn tennis, and one that promises still further developments, lies in the use of the front and back of the court for placing, rather than the sides. Instead of driving first to one side and then the other, the modern expert player drives *first short* and then deep."

[Against S. H. Smith, Ward produced the regulation *first short* stroke, with the result that no opportunity for playing the "deep" one occurred at all.]

Then he goes on, at page 153:—

"A systematic net attack should be opened with a deep forcing stroke. Should the opportunity come when the opponent's return is deep in your court, it is generally dangerous to use a diagonal forcing stroke, for this brings him to one side of the court, and leaves that side-line wide open for a pass. In such a case it is generally wiser to direct the forcing stroke straight down the centre of the court to the middle of the base-line, and then to follow the ball up as quickly as pos-

sible to the middle of the net. . . . *The safest position at the net is always with the ball in the centre of the court.*"

On this truly remarkable passage I may say (1) Mr. Paret takes *not the slightest account of the pace of the diagonal forcing shot. The faster it is, the difficulty of bringing off this pass increases in geometrical progression.* Every English tournament player of any experience knows perfectly well that if one drives a *really fast ball of good length* into that diagonal corner of the court where one's opponent is *not*, and then goes up to the net, the odds are 6 or 8 to 1 that one will at least be able to reach the return. To assert that "the safest position at the net is always with the ball in the centre of the court" is to assert that which everyone who has played a base-line player of severity (such as Gore, Smith, Boucher, E. R. Allen, and Ritchie) well knows to be untrue, because *the ball is thereby put within reach of their murderous fore-hand drive, and is often never "seen again."* Mr. Paret himself describes a match he played against a man at "Syracuse" who had "a fore-hand like a six-inch gun," as he phrases it. One might just as well say that because, from the standpoint of geometry, one ought to be able to stop a bullet with one's racquet from the centre of the other court, therefore one would be able to see to do it. Mr. Paret ignores the fact that the human hand is quicker than the human eye. As a further argument for not driving diagonally to the side-lines in order to gain position at the net, Mr. Paret adds: "The more the lines of possible direction diverge, the slower must be the stroke in order to drop within the side-lines; and the slower the pass, the more time you have to reach it, and the easier it is to kill." This is on a par with his other theories. In the first place, he takes no account of the fact that by driving diagonally *one can make one's opponent run thirty or forty feet* before he can reach the ball to return it. Mr. Paret takes absolutely no heed of the resulting strain on his stamina, or the moral effect produced by the necessity of returning the ball from a much greater distance from the net with one's opponent up at the net. To allege

that there is a *necessary reduction of speed* in the diagonal stroke which in any way counterbalances the immense gain of time caused by forcing one's opponent far out to the side of the court, is so palpably contrary to the facts that I have not the patience to discuss it. I will conclude by quoting one short sentence, which I commend especially to all players who have ever played S. H. Smith. "If the chance for the forcing stroke which is to open the attack comes when the opponent's drive is near the base-line, this safe centre drive *can be frequently made more effective by playing slow*, for this will give additional time to reach the net in safety before the return can be made." This may be true if one's opponent plays the Paret style of pat-ball from the base-line, but if he knows how to drive it is the exact opposite of the truth. I think that from the foregoing mass of extracts it becomes clear (1) that Mr. Paret's fallacies, in so far as he himself believes in them, have sprung directly from *pat-ball base-line play*. When your opponent is on the back-line he says it is a mistake to waste your energy in hard driving, and that when he is at the net the best thing you can do is to lob over his head. He also suggests that, when a player is himself about to leave the base-line and run in, he ought to *play the return slowly in order to get more time to run in*. This is the climax of absurdity, for that time will be often dearly bought. In fact, he advocates *slow pat-ball* for back play, whereas in England it is no longer within the domain of argument that severity in back play is one of the chief factors of success. (2) He contends that there is safety in serving close down the middle line *into either court* (for running in on one's service), whereas, in fact, to do so *into the left court* against a good fore-hand driver usually means *sudden death*. (3) He puts forward the ridiculous proposition that before running in to attack at the net one should first play a *short-length ball*, and then a good length *slow* return deep down the centre of the court. He bases this extraordinary advice substantially on the following reasons: (a) The short ball brings your adversary out of the safe position on the back-line, so that the following "deep

return" will find him at a disadvantage. This reason would be excellent but for the facts, firstly, that if one's opponent be a good driver he will at once take advantage of the short return to *bang it diagonally out of one's reach*, and, secondly, that if he be a good volleyer the short return gives the most perfect opportunity for *himself to assume the offensive*. Holcombe Ward duly played the short-length ball against Smith, but, unfortunately, there was no occasion for any "slow deep forcing stroke" afterwards. (b) He says that the slow deep ball down the centre gives one more time to get to the net. Mr. Paret does *not* say that it puts the ball at a slow pace *ready to one's opponent's hand for passing down the lines*. I leave the reader to judge which is the greater advantage. (4) His fourth great fallacy consists in the amazing assertion that the centre of the court is preferable to the side-lines for this slow deep stroke, because he alleges (a) that it is easier to pass a man at the net off diagonal strokes than off centre ones, (b) and that it is necessary to play the ball slower for a diagonal stroke than for a centre stroke, and that therefore one is less likely to give trouble to one's opponent with the slower diagonal stroke. Such statements are without a parallel in the literature of lawn tennis for absurdity. They are directly contrary to every result of experience in the matter. As regards (a) it may be pointed out that Mr. Paret absolutely disregards the vital element of *pace*. If a good diagonal drive be made far down the court, the effect of the *pace and position* of the drive makes it not easier but *ten times harder* to pass a man who has followed up this fast, good-length ball to the net. With the human organism constituted as it is, it is sheer lunacy to disregard (i.) the effect on the "wind" of one's adversary by making him run 30ft. or so from the centre of the court. *He does not have to run at all* to return Mr. Paret's centre stroke. (ii.) The corresponding increase in the chance of a bad stroke through this exertion. (iii.) The immense practical increase of difficulty in returning a fast ball which pitches diagonally far away from the net. Because *from the standpoint of pure geometry* it is possible to draw a line from this

diagonal position into one's opponent's court out of the reach of his racquet, Mr. Paret (followed by Mr. Vaile with a diagram in the *Field*) arrives at, or professes to arrive at, the conclusion, wholly contrary to the facts of every day's experience, that geometrical possibility implies physical possibility. It implies nothing of the kind. There is not a first-class player in England who does not know that a fast and deep diagonal return in every-day experience is infinitely safer for running up to the net than a slow ball deep down the centre. The mythical opponent imagined by Mr. Paret is not made of flesh and blood, and does not possess human lungs, muscles, or nerves, but is some hitherto unknown sort of automatic creature. There are plenty of fine base-line players who would often succeed in passing a man off a *slow* diagonal drive, but then not every player drives in the pat-ball style so industriously advocated by Mr. Paret. The allegation that the diagonal shot must be played slowly, and involves loss of time, is shown by every-day experience to be merely "drivel." Mr. Smith, in particular, does not play his fore-hand diagonal strokes very slowly. (5) Mr. Paret's fifth fallacy consists in the assertion that there is a generic difference between a "*forcing stroke*" and a "*winning stroke*." A forcing stroke is, in his phraseology, one on which a man runs up to the net. A winning stroke is one whereby the ball is put out of one's opponent's reach. I need hardly point out to the English reader that there is no generic difference between these two strokes, but that the nearer the "*forcing stroke*" approximates to the "*winning stroke*," the safer it is for a man to run up to the net after it. It is all the better by out-driving a man to win the ace outright with a forcing stroke, and to have no need to volley when one reaches the net.

All of the above fallacies were elaborately "served up" in a second-hand *réchauffé* form by Mr. Vaile in an article in the *Field* in 1905 on what he called "Centre Theory." Anyone who cares to look at the article in question will find that Mr. Paret's book was the fountain-head from which it proceeded in a singularly undiluted form. Mr. Paret's book also displays

the same confusion of idea concerning the different classes of back-hand strokes as Mr. Vaile displayed at great length in "Great Lawn Tennis Players." Any student of the game who is interested in the matter will find it treated in the first article of my recent book, "Lifting the Veil."

I have now done with Mr. Paret and his theories, and I hope that the next time a man of some brains—for Mr. Paret possesses brains—attempts to deal with lawn tennis, he will not use them so vigorously to "darken counsel" as Mr. Paret has used his.

SECTION 3.

DIET AND CLIMATE.

CHAPTER XII.

DIET AND TRAINING.—I.

Lawn tennis as a diet test—Its advantages for scientific purposes—Nature of tournament tennis—A febrile occupation—Natural instincts in diet—What perverts them—Very few philosophers in diet—Need for hot and savoury meals after tennis—Training—Early rising—Exercise before breakfast—Baths—Necessity for hot baths at night—Meals often the grave of lawn-tennis careers—Breakfast—Digestion of cell-protoplasm—Need for alkaline food—Fruit tarts for breakfast—Buttered toast and jam a "complete food"—Oatcake—Reasons for writer's dietetic habits—Sugar as a food—Virtues of milk—Cream—People who eat little proteid—Food of chamois hunters—Effect of cream after many matches—Its probable reconstitution in digestion—Strawberries and frozen clotted cream—Potatoes with butter as a complete food—Effects of a day "off colour"—Lunch—Cell-protoplasm and ptomaine poison—"The worse for food"—Time occupied by digestion of meat—Hot cereal puddings—Lack of fruit in ordinary diet—Alkaline starvation—Professionals and their apples—"Slowing-up one's energy"—Nuts as a non-bulky food.

THE present article constitutes an attempt to embody as briefly and succinctly as I can the main results of my own experience with regard to diet and training in the last twelve years, during which I have played in over 120 tournaments. Whatever may be their shortcomings, I can promise the reader that my views are at least definite and decided, and that I do not leave a back door open to escape from my own statements by means of ambiguous language. For lawn tennis is a very definite and decided sort of

pursuit, and sins of diet are visited on the head of the offender so unmistakably, if he happen to play a close match soon afterwards, that there is often no room left for doubt in the mind. When the real nature of the bodily exertions frequently undergone by all kinds of players, especially at "three-day" tournaments with a large entry, becomes recognised by medical and other scientific men, the unique value of the tennis tournament for food tests and physiological tests will at once become apparent. For a scientist rarely meets with a pursuit the votaries of which frequently lose four or five pounds in weight in a couple of hours during a single match of five sets. The late Ernest Renshaw lost seven pounds on one occasion, and Mr. Parmly Paret alleges that when playing Wrenn he lost eight and a half pounds. Doubtless in the future we shall see the food of the crack players duly weighed and analysed, and their loss of weight recorded, along with all the other diagrams and tables about "nitrogen balance," &c., which are necessary to a scientific test. The extreme value of lawn-tennis matches in eliciting facts about the value of food and the nature and quantity of it required cannot, I think, remain long unperceived, especially in view of the *certainly* with which all the facts concerning (1) the food consumed, (2) the duration of the work, (3) the loss of weight, (4) the result of the match can be ascertained. It has been said that human life resembles a sausage, because one never knows what is in it until one has been through it; and the same remark applies to a lawn-tennis tournament. In a hard match a player's garments, which often look as if he had fallen into the river, probably convey some idea to the public of what tournament tennis is like; but only the players themselves can have the least idea of the strain involved in playing an extra forty or fifty games at the end of the evening after seventy or eighty previous ones, which is common enough at English tournaments. The insomnia arising from errors of food and drink after fatigue of this kind is so common among lawn-tennis players that I believe they could supply enough material for a brand-new volume of Lagrange on the Pathology of Exercise.

There is no getting away from the fact that tournament tennis is a febrile sort of amusement, inasmuch as it often means six or seven hours' violent exertion under a blazing sun. It is chiefly owing to the fact that such a manner of life affords an immense amount of unmistakable experiences in the matter of diet that I have ventured to embark here on a subject about which it is commonly supposed that no two persons are fully agreed. Nearly all the scientific writers on food are grossly ignorant of the effects on diet of constant and heavy bodily exertion, although this alone teaches one the real value of various foods. It is this fact which enables me, although unskilled in science, to treat the subject with some confidence. The way to learn the value of food is much the same as the way to learn the value of money, as Abernethy implied when he said, "If you want to be healthy live on sixpence a day, and earn it yourself." No one knows the real value of food until he discovers by means of some kind of labour the full amount of work which a certain quantity of food enables him to do. As food supplies are plentiful among the well-fed classes, and there is every inducement to eat more than one actually requires, it is often only by accident during some forced march or excursion when supplies are compulsorily cut off that one obtains any idea of the minimum of food and drink one actually needs, just as one learns the value of a sum of money for the first time when one has to earn it for one's self or to actually live on its purchasing power. The amount of food actually needed to sustain exertion and keep the body healthy is almost always found to be far less than the well-fed classes habitually consume. Hence we find people like Beecham making an income of £80,000 a year by helping to disencumber them of their loads. The physical tests which enable one to discover the full value of food are necessarily severe and prolonged, and consequently only a few people (other than the Great Unfed) undergo them, mostly by accident, as when too long an expedition on some Scottish moor or mountain is undertaken without supplies. No doubt nearly every material fact about diet could be collected from those members of the work-

ing classes who are workers, but unfortunately they are not good at expressing themselves. After several years of observation, I arrived at certain definite conclusions as to the kinds of food which suited me best. I did so without any scientific knowledge, and without any guide other than my own likes and dislikes. But as my curiosity about the food question became aroused by one or two pamphlets, I took the subject up, and studied some of the best-known books on it. I then found that in practically every case there was some direct scientific authority for my particular habits of diet, and this discovery emboldened me to proceed with the present task. For it is impossible even for the most learned scientist to deny the significance of natural instinct, especially in matters of food. The things which chiefly pervert that instinct are, in my opinion, alcohol, tobacco, and a sedentary life. But all these things are more or less accidental, and there are plenty of people, especially among athletes, who have retained their natural instincts unspoiled. It is to these that I chiefly address myself.

In the compass of a short chapter such as this it will be impossible to give anything beyond a few brief hints about the scientific facts which could be adduced in support of the system of feeding here advocated. If anyone desires to do so, he will shortly find many of them set out in a book by the present writer called "The Great Diet Question." I desire to make it plain from the outset that although I find a fleshless diet suits me best, my experiences at lawn tennis have served to guard me against extravagant denunciations of diets in which flesh plays a certain part. In the book above mentioned I have collected some of the many arguments relating to economy, health, anatomy, &c., which appear to me to be *logically* fatal to the use of meat; but I am well aware that in the first place most of my readers are not philosophers, but since the smell of cooked meat is what it is, they will go on eating it in spite of its drawbacks, and, secondly, that under the present conditions in England the man who is in want of a meal such as only a tennis player at the end of a day's play can eat, and who further wants to get it from fleshless

sources, will mostly have to put up with cheese or eggs plus the ordinary table vegetables, and if I were asked whether there be much fun in this I should say "No." People cannot cook fleshless dishes for themselves at hotels or friends' houses. Moreover, it is far better for one's health after severe exertion to make a full meal of meat or fowl, if no proper fleshless mixtures are obtainable, than to dine off food which is too light or is not relished, which simply spells insomnia and disaster. It is true there is plenty of proteid in peas or beans in the form of legumine, and that there is plenty of fat and proteid in nuts; but the peas or beans alone are unappetising, and the cold nuts are out of the question as a substitute for a hot table d'hôte after a really severe day. One usually pays an absurd price for one's proteid and fat from a flesh source, and all flesh contains nuclein bodies, which tend to produce uric acid, but it is better than too flimsy a diet after hard exercise. As I do not desire needlessly to scandalise business people by reference hereafter to lawn-tennis matches in the forenoon hours of the day, I may remark that many of the big tournaments occur at the holiday season of the year, and that the majority of those who play in them do so during their annual holiday. In suburban tournaments play is limited to the afternoon and evening.

Before I embark on the controversial question of diet it will be convenient here briefly to mention one or two things which powerfully affect one's success at lawn tennis. The first of these is early rising. I do not believe that there is any pursuit on earth in which the evil effects of too much sleep are more apparent than in lawn tennis. The difference in the efficiency of a player who rises at six and that of the same man when he rises at eight or nine is often as great as the difference between "Philip drunk" and "Philip sober." The reason of this, of course, lies in the fact that lawn tennis, more than anything else except perhaps a surgical operation, demands steadiness of hand and nicety of touch. It also requires quickness of sight combined with a certain mental "alertness," without which all is useless. There is nothing more fatal to

the exercise of all these qualities than late rising, which produces an *easy-going, lethal frame of mind*, so that its possessor often falls an easy victim in that struggle for the "survival of the fittest" yclept a lawn-tennis tournament. I know very well that tournament players need more sleep than almost anybody else, but I also know that, unless they have been up half the night, the sleep they get after about 6.30 loses them many a match, because it makes them lethargic just when they need to be most alert in order to seize their chance. The only time I defeated W. V. Eaves I happened to get up at five o'clock.

The second topic relates to walking before breakfast. A course of boating training at the Universities effectually teaches the great effect of this beneficial habit on the general health. There is no need to go out for more than about ten minutes, but the effect of this (especially if a "sprint" for a hundred yards or so be included) on one's relish for breakfast and sensations throughout the day is so marked that I cannot for the life of me understand why nearly all men give it up when training is over. The fresh air often doubles the appetite for breakfast, which is no small consideration with those who make breakfast a good meal. It is a great mistake to let bad weather interfere with this practice, as five or ten minutes in a mackintosh seldom hurts anyone. I can hardly believe that people who discover how much benefit this habit confers will abandon it when the summer season is over. Lastly, there is the question of baths, which is one of great importance to people who perspire as violently as lawn-tennis players do. In common with most other players, I have found that in general a swim, or even a plunge-bath, is generally debilitating before play; but the merits of cold-water sponging before breakfast for producing an appetite and as a tonic for the whole day are too well known to need discussion. This kind of bath does not "take it out" of one like a plunge. I do not assert that a plunge bath is always bad for play. If one is in a very "close" or relaxing climate, or if one has had little exercise the day before, or

a long railway journey, the relief afforded by a bath before play is so great that it is probably beneficial. If one has bathed overnight, a plunge bath next morning is almost always injurious, and there can be no two opinions as to the debilitating effects of a regular "swim" before playing. A good deal, however, depends on the reserve of vital heat which a player possesses. A warm bath at night, followed by a douche or (failing that) a pail of cold water, is, in my experience, about the most essential thing in the world after a long day's tennis. *The longer the exertion has been prolonged, the greater is the need of the pores of the skin for a warm bath. A warm bath is utterly different in its effects from a shower bath or a sponge bath. It exercises a strong sedative effect on the nervous system, tending to produce sound sleep afterwards, which is of indescribable benefit after over-exertion such as all tournament players sometimes undergo.* If the nervous system has been really harried by too many matches or by too long a match, which is a very common thing, and then if the ordinary shower bath be taken before the large evening meal which most players naturally make, several hours of insomnia usually follow; whereas a hot bath might have repaired the damage. It produces an immediate sense of relaxation after exercise; and it removes fatigue and greatly increases the appetite on the following morning. It is Nature's remedy. I used to think that it was too weakening, but I found that, on the contrary, the increase of appetite and the sounder sleep it produces tend to increase the stock of strength. But if one has played much beforehand it is a great mistake to stay in the hot water more than a couple of minutes or so, as otherwise the functions of the liver are liable to be interfered with. When leading a City life I have also found a hot bath of immense value in removing brain-fag and producing an appetite for the evening meal. Lawn tennis is such a hardy sort of pursuit that it is not nearly so easy to catch chills after getting hot as would be imagined; but if the wind is cold, and if one has to umpire or stand about in it for some time after a really heavy

lawn-tennis perspiration, a shower bath or rub down with a wet towel or sponge and a cup of hot tea are very simple precautions, but the neglect of them may mean an illness, or, at least, a most uncomfortable cold. However, people who play much can frequently "play off" incipient chills, &c., in a short time.

Before I quit the subject of training I must mention one obscure phenomenon too well known to tournament players, viz., the fact that not only on different days, but often on the same day, one's form varies enormously. Form largely depends on previous preparation, and I have always found that there is no worse preparation for a championship match than an absolutely "slack" day before it. Some sort of exercise, not necessarily at tennis, is most essential. Most players know that sometimes after being "extended" by one or two matches they become altogether different men. The great thing is to be "extended" at the right time, and for this purpose inaction is usually the worst thing, while a "knock-up" or a game at billiards may be invaluable.

I now come to the question of food. There are various reasons which appear to me to prove that the big meal of the day in the case of lawn-tennis players should generally be taken at night after play is over. Of one thing I am certain—viz., that more promising reputations at the game have been buried among the plates and knives of the breakfast-room and the luncheon-tent than anywhere else. As a general rule the better the hotel the more nitrogenous will be the breakfast. There will be fish and ham and kidneys and sausages and chops, among other items. Now, all nitrogen-containing foods are known to offer much greater resistance to the disintegrating action of oxygen than non-nitrogenous foods. Consequently, when the player goes into court at about eleven o'clock, as mostly happens except in suburban tournaments, while he thinks perhaps that he is using all his energy to win, he is not really doing so, for half of it is being used up on what doctors call "the breaking up of cell-protoplasm"—i.e., the digestion of flesh food, which is a different process from the digestion of all other food. Some facts about it will be found later

on in this chapter. The moral to be drawn from them is that if you want to play your best before lunch you should avoid "cell-protoplasm" like poison at breakfast, for the breaking up of it takes three or four hours. Make as heavy a dinner as you can relish overnight, but at breakfast select your food chiefly from starch, sugar, fat, and fruit. If you really relish nitrogenous food at breakfast (as often happens when the climate is bracing and the digestion is good), it should be taken in the form of eggs and porridge; but if you want to play well afterwards, more than enough to satisfy the appetite should not be eaten. Personally, I long since discovered that after a full meal overnight one chiefly needs at breakfast food of an alkaline or "scavenging" rather than of a nitrogenous character, such as fresh fruit, stewed fruit, and particularly fruit tarts. The latter mixture affords some nourishment as well in a tasty form in the crust, and when well made and served hot with plenty of thick cream it is one of the most delicious and sustaining breakfast dishes in the world, although hardly anyone eats it for breakfast at present. But the advantages of fruit tarts, of fresh and stewed fruit, and of French "macedoines" of fruit with plenty of thick genuine cream, such as can now be obtained from some of the large dairy companies, will be so obvious to most players engaged in the febrile practice of tournament tennis that these dishes can be left to recommend themselves in place of fried bacon and sausages. I also have a high opinion of "Grape Nuts," provided one can get good cream with it, both for breakfast and for lunch, owing to its power of producing an immediate sense of relaxation after muscular fatigue. One does not often come across pamphlets containing a complete system of metaphysics in packets of patent porridge, as is the case with this mixture.

I believe most of us know too well the discomforts arising from a meat meal at a time of day when, as a well-known player remarked to me, "the body is not in a fit state to receive it." If one wants something really substantial for breakfast it is easy to find it in hot buttered toast and jam, which is one of the most sustain-

ing things imaginable. As it can easily be had anywhere, I breakfasted for several seasons off practically nothing else, except fruit, while playing in tournaments, because in many places, especially abroad, one cannot get fruit tarts. Oatcake, with butter and jam, is most excellent for breakfast and for lunch as well, but until it is re-discovered by English caterers we shall have to do without it. Its utility as a sustaining food for people such as lawn-tennis players—who, more than others, need sustaining food at breakfast and lunch, but not in a bulky form—is known to all who have walked many hours in a boisterous climate on a very small quantity of it.

Dr. Hutchison says “a given weight of oatcake contains rather more than twice as much building material as an equal quantity of bread, and has almost twice as great a fuel value.” To this I would add that when well made it is “almost twice as nice” as bread.

Before I proceed to discuss the ordinary English tent lunch and tea, and certain alterations in them and in the evening meal which I believe would in many cases have a marked beneficial effect on lawn-tennis play, it is necessary to give a short outline of the way in which I was, in a sense, driven to my main conclusions about diet, and of what those conclusions are. I want, in fact, to “play with my cards upon the table,” so that the reader can form his own judgment on the facts, and “take them or leave them” as he pleases. In the first place, I have always, from childhood, had a great liking for milk as a drink, and for sugar and cream. Everyone knows that children have a natural taste for these things, and I believe that in general they come to lose that taste mainly from four causes, viz. : (1) Alcohol, which is produced by fermenting sugar, and which is known often to destroy the taste for sweet things, and many other tastes as well. (2) Tobacco. Many heavy smokers do not care for sweet dishes of any kind, nor for various other natural forms of food. (3) Example and rules of diet, as in schools, which discourage these tastes. (4) Sedentary and artificial modes of life. On the other hand, when a person escapes, as the present writer did, in boyhood from the usual

sojourn as a boarder in some large juvenile monastery,* yept a public school (where he eats, as it were, "au tambour," i.e., by beat of drum, and is drilled in his dietary as in many other things), and when he also happens to care very little for the taste of alcohol or tobacco, he will have a very good chance of preserving his natural tastes in food, provided he gets plenty of outdoor exercise. Hence I have consumed much sugar, milk, and cream all my life, and at Cambridge I found that College athletics greatly increased my appetite for these things.

I do not intend here to repeat all that will be found in my work on "The Great Diet Question" with regard to the scientific food value of these articles, but will content myself with one or two extracts from an admirable pamphlet published by the United States Board of Agriculture, and called "Sugar as Food," in order to illustrate the peculiar value of sugar to lawn-tennis players: "The English give sugar to their blood-horses in order to sustain them in the trials to which they are subjected." "More sugar disappears from a working muscle than from a muscle at rest." "Without doubt the sugar in the blood is heavily drawn on during violent exercise; hence the longing for it in a form that can be rapidly assimilated." "Very interesting was the effect of sugar in delaying the natural coming-on of fatigue which has been found to occur between 5 and 7 p.m. If three to four ounces of sugar were taken a short time before this hour, the ordinary fatigue did not appear, and work went on as usual." This occurred during the experiments of Vaughan Harley under the direction of Mosso. This gentleman tried the effect of living on sugar, and nothing else, for a whole day, and found that on 17½ ounces of it he could do "almost as much work as on a full ordinary diet." He also found that "when nine ounces of sugar was added to the ordinary diet, the gain in muscular power was considerable. The effect, although felt one half-hour after eating, was at its height in two hours." So that if, as usual, one is called on to play a match soon

* I, however, derived the greatest benefit from a London public day-school.

after lunch, one will be getting the benefit of the sugar after half an hour, whereas meat requires three to four hours before it even ceases to incommode us. In the German Army experiments were carried out for thirty-eight days during manœuvres with soldiers who had no sugar and soldiers who received ten lumps per day, with the result that none of the latter were knocked up, and their "pulse rate and breathing were less affected by exertion" than in the case of the others. It merely remains to add that raw or "Barbadoes" sugar contains most wholesome salts of potassium (improved away from white sugar), and nevertheless is very palatable, and that in general sugar acts as "a powerful antiseptic and germicide." We now know why it is that tennis players at Cannes so regularly gravitate towards Rumpelmayer's in the afternoon, and that in England so many players run across each other in good confectioners' shops about the same time. Of course, it is easy enough to produce acid dyspepsia with too much sugar when one is neither playing tennis nor taking much exercise, but the meat eaten often largely helps to cause this, and there is usually a lack of alkaline food in the diet when this occurs. Children (and doubtless lawn-tennis players also) like much sugar, "owing to the loss of heat from the skin produced by activity which has to be made good by more heating food than ordinary people require." With regard to milk, Dr. Hutchison, the well-known food expert, gives the following account of its invaluable qualities: "Milk has a strong effect as an alkali in neutralising acids. It diminishes the acidity of the gastric juice. . . . Milk seems to be absorbed with less expenditure of energy than any other food, i.e., with less wear and tear upon the part of the intestine. . . . There appears to be no doubt of the fact that milk seems to exercise a restraining influence upon putrefactive processes in the intestine. . . . Milk-sugar, or lactose, is very hard to ferment. . . . The use of milk lessens the excretion of uric acid." This brings me to the subject of cream and butter.

I have descanted at some length in "The Great Diet Question" on the various experiments with cream and

butter, which established their immense value in my mind as staple articles of nourishment. The reason why, for many years before I read any books on food, cream formed a portion of every meal I made, whenever it was obtainable, lay in the fact that it had more attractions than any other equally nourishing substance. It is, in fact, except for butter, the most delicious form of animal fat in existence, and it is ridiculously underrated and disregarded by most writers on diet. People who play lawn tennis and other games involving heavy perspiration will find that they can take a far greater quantity without discomfort than can ordinary people, and that, *provided it be thick and pure*, they can dispense with meat or its substitutes (a subject discussed later in this chapter), except at the evening meal, with the greatest ease and with far more gastronomic enjoyment from it. Nor is it difficult to obtain good cream in this country (although usually impossible on the Continent), for although it is often "doctored," several large companies sell it in a pure state. Among them I may gratefully mention the Leicestershire Dairy Co., the Wigtownshire Dairy Co., and the Wiltshire United Dairies Co.

Our modern cream is the creation of the "separator," which produces a liquid containing from 45 to 53 per cent. of fat, instead of only 20 per cent. in the case of skimming. Clotted cream contains about 60 per cent. of fat.

It is generally believed that to take cream in any but a very sparing quantity is to run the risk of biliousness, and no doubt this is true in an ordinary diet, because it is usually taken only after *various bile-producing meat dishes*. But if it be used more or less as a staple food along with plenty of exercise and fruit, one can easily take much larger quantities with, in my opinion, much more gastronomic enjoyment than one would get out of beef and mutton, which are often eaten merely as a sort of duty for the sake of the nourishment. In order to give cream a fair trial, one should not eat it after half-a-dozen other things, but very early in the meal. Cream is usually considered a most expensive luxury, but before one admits this one

must consider the amount of gastronomic pleasure it produces. If this be great the actual physical benefit which a thoroughly relished food produces may make it a very cheap food in many cases.

I recently obtained some interesting details about his diet from a champion walker named Bray, who walked to Brighton in about a minute less than nine hours (if I remember rightly), beating the best Stock Exchange time by twenty minutes. He told me that although a butcher by trade he made a practice of eating meat three times a week only, and then in small quantities, because it improved his walking. He also attributed much of his success to the fact that for many years he had consumed a pint of good cream every day through living at a farmhouse. He also said that he did not begin racing till his thirty-ninth year, but that all his life he had taken regular exercise, and had rarely been out of bed after ten o'clock at night. The reader will perceive that he corroborates the theories here set forth.

The talk about lack of nitrogen in cream and butter is mainly nonsense. It is usually said by the "proteid" party that fat and sugar are merely "proteid spacers." It appears to me that in view of the following facts one might as well call a half-crown a "shilling-spacer." Human milk, which is undoubtedly one of Nature's "complete foods," contains (in 100 grammes) proteid 0.9, fat 3.32, sugar 6.75 (Hutchison). The Irish live largely on potatoes and butter-milk, in which there is only a trace of nitrogen; the Poles on potatoes; the Arabs on dates, which contain about 4 per cent. of "proteid"; and the Indians on rice, which contains 6 per cent. The Irish peasantry are known to possess as fine a physique (on the whole) as could be found in Europe. Their normal diet is, or was, 1lb. of potatoes three times a day. This represents altogether $\frac{3}{4}$ ths of an ounce of proteid. Now, 32 per cent. of this is unabsorbed in the intestine, and the loss of proteid in boiling may amount to anything up to 20 per cent., so that these people develop their energy for moonlighting and cattle-maiming on *about half an ounce* of proteid daily. The Swiss chamois hunters take only bacon-fat and sugar with them on their trips, although

that kind of work must make almost as great a demand for a "complete food" as does a lawn-tennis tournament. The negroes in Alabama also eat molasses and bacon-fat at every meal. For my part I agree with J. Smith, the author of "Fruits and Farinacea," that in healthy persons, such as these, "the oleaginous principles of food are gradually converted into nitrogenised principles (when necessary), and that the splenic lymphatics assist in effecting this change." For except by some such theory I cannot otherwise explain an undeniable fact which any lawn-tennis player can prove for himself, viz., that after playing over a hundred games in the sun, and losing several pounds in weight, if one eats what would be generally deemed an extravagant quantity of thick or clotted cream with stewed fruit and milk puddings (with plenty of sugar), it not only repairs all the ravages created by the exertion, but enables one to play far better the following day than after a meat dinner. I found that prolonged play produced a craving for cream, and that one obtained more gastronomic enjoyment out of it than out of the usual beef-steaks, &c. The most enjoyable dish I ever tasted was a very popular one in Stockholm society, viz., strawberries with *frozen clotted cream*. It ought to be introduced here. Cream is the great stumbling-block in the way of those who, for their own private ends (or rather, private *means*), are ceaselessly engaged in preaching the necessity for most excessive quantities of nitrogenous food. Butter is of great use in providing a makeshift dinner of fleshless food when mixed with potato. In order to avoid staleness after an unusual number of matches, it is often advisable to avoid meat at night, and, as it is usually difficult to obtain really nourishing fleshless dishes in place of it, some of my readers may find it useful to remember that potato mashed with plenty of butter and pepper, and eaten with a green vegetable, either with or without poached eggs, forms a palatable and satisfying dish. For one only gets one "life" in a lawn-tennis event, and a single "off" day will ruin everything.

A singular commentary on the Grape-Nuts, fruit, and cream which I advocate for the light meals of the day

is afforded by the diet of those who were engaged in tournaments of a far more serious kind, viz., gladiators. Their *complete dietary* consisted of barley, figs, and oil, which is rather "up against" those who say that flesh is necessary for fighting. These people also overlook the fact that it usually takes six men to hold an orang-outang, which is wholly frugivorous.

I shall now deal shortly with the questions of lunch, tea, and dinner, and shall try during the process to indicate the alterations which I should propose in our present habits. Everyone knows what an ordinary English tent lunch is like, and I believe it is chiefly responsible for the undeniable fact that players lose as many matches because they are "the worse for food" as from any other cause. One pays half-a-crown and takes one's choice among salmon, beef, chicken, veal and ham pies, and pigeon pies. In fact, it may be said that cell-protoplasm and ptomaine poison, in small doses, are the chief characteristics of the meal. Nor do the cold and heavy sweets add much to its digestibility. The nature of lawn-tennis matches is such that it enables a man who is getting much play to eat almost anything without much discomfort and with apparent impunity, but there is no doubt that his efficiency varies greatly according to his food. It is usually said that a hot meat meal is "stimulating." The proper word is "inflaming." It is five or six o'clock before a meal of this sort disappears from the stomach, and in the meantime the disintegration of its flesh constituents is inevitably using blood otherwise available for the muscles, and much energy otherwise available for the "single handicap" or the "open double." The "inflaming" effect of the meat, even if eaten hot, lasts but a short time, and the sustaining effect does not begin till about the close of play, whereas in the case of sugary food it begins half an hour after it has been swallowed. My own idea of a tennis lunch is that the size of it should largely depend on the question whether one has played much in the forenoon or not. In the former case, I believe that some hot farinaceous pudding, with sugar and a moderate amount of cream, forms one of the most palatable and sustaining dishes

that could be found. In this connection I may mention that Scotsmen engaged in heavy agricultural work in a bleak climate usually reckon that a basin of porridge, and nothing else, will sustain them for five hours, so that one need not fear to play a hard match on a lunch of this sort. There is no pursuit on earth at which it is easier to get stale than at lawn tennis. In my opinion one of the great secrets of avoiding it consists in taking fresh fruit or limejuice and lemon-juice at every meal of the day, including tea. There is no hardship in doing this, for one soon finds that such fruit as ripe melons, grapes, persimmons, peaches, pears, and oranges act as a sort of natural champagne on the spirits. I have the strongest conviction that in many, but of course not in all, cases where at present we eat meat, bread, and butter, what we really need is alkaline vegetable food, and that our blunders in this respect produce most of the digestive miseries and corresponding mental miseries from which, to a varying extent, we all sometimes suffer. In other words, an ordinary diet, and especially an English hotel diet, is so deficient in what may be called the scavenging and cleansing elements of food, and so rich in nitrogenous food, that it means *partial alkaline starvation*, and drives many people to drugs in consequence. In this respect it is useful to recall the example of two professionals I once knew, who sometimes played 200 games in a day, and who made a constant practice of consuming several pounds of apples in the intervals, with the greatest benefit to their health.

Although a deficiency of alkaline food (which is the commonest thing in an English diet, especially at breakfast and tea) causes discomfort to everybody, a lawn-tennis player suffers especially from it, as he needs more alkaline foods than other people. A man who is going to play a match after lunch, which he is anxious to win, should remember Mr. Paret's words, viz., that a big meal will "slow up his energy," and it is useful to recollect that walnuts, almonds, and brazil nuts contain an immense amount of nourishment in a small space, and are most useful at lunch, although I should scout the idea of dining off them. The taste of

a walnut to a hungry man recommends itself. The anatomical structure of man, which points him out as allied to the fruit-eating ape rather than to the wolf or the cormorant, affords strong confirmation of the above suggestions. For example, the liver of the carnivora has six lobes, and a power of breaking up the uric acid produced by flesh food which is ten to fifteen times as great as that of the human liver. There are other striking differences between the structure of the carnivora on the one hand and man and the ape tribe on the other connected with (1) the mastication of food, (2) the shape of the stomach, (3) its digestive movements, (4) the teeth, (5) the brain, (6) the cellulated colon, (7) the alimentary canal, (8) the brain, and many other things.

DIET AND TRAINING.—II.

Vast importance of minerals in food—Useless unless in organised form—Uses and sources of lime and phosphorus—Potassium, sodium, and chlorine—Iron, sulphur, silicon, and magnesium—Value of oats and barley for minerals—Lack of minerals in ordinary diet—A hygienic "little-go"—Ten—Lack of alkaline element in it—Plum-juice—White bread and dyspepsia—Sailors' opinion—Flesh food—Tennis players good judges of it—"Nut meats"—The limited choice of fleshless foods—The author's cutlet—Its composition and advantages—A specimen tennis dinner—Liquids—Effects of excess in them—Example of famous players—English v. Turkish cups—Hot tea at lunch—The nitrogen controversy—Proteid tissue in the herbivora—How did it get there?—Sylvester's theory—Excess of proteid a national curse—Its effects—The Chittenden experiments—Digestion of meat—Effect of waste products produced by it—Five months on a low proteid ration—Results of it—"Not proteid that the athlete's work wants"—Source of energy of muscular contraction—Fighting on a meat diet.

THIS seems to be the proper place for a few remarks about the need for the right kinds of minerals in our food, than which no element of nourishment is more important. These minerals are of no use unless they are eaten in their natural *organised* form in various substances. The two most important minerals are lime and phosphorus. Meat contains practically no lime, although it is the chief mineral in our skeletons and makes up nearly half the total mineral matter in the body. It also builds our teeth. Haricots and other pulse foods contain more lime than any other vegetable food. Lime can also be obtained in plenty from yolk of egg, milk, cabbage, onions, and strawberries. Phosphorus is present in all the cells of the body, and can be had in abundance from all the "legumes" and cereals, and from walnuts, almonds, and eggs. It would be difficult to over-rate the value of phosphorus from a tennis-player's point of view. A medical writer has said, "Wherever growth is most active there most phosphorus is found. It enters into

the composition of all cell nuclei, and it is abundantly present in the bones and in the central nervous system." And again, "Phosphorus is very necessary in the brain and other centres of nervous action," on which the game makes the heaviest calls, for lawn tennis is pre-eminently a game of nerves. This being so, the following figures showing the percentage of phosphorus in some well-known articles need no comment from me in establishing the value of the fleshless cutlet of beans and cheese advocated elsewhere in this article as a substitute for meat:—

Gruyère Cheese, percentage of Phosphorus	1.350
Haricot Beans	"	"	.924
Eggs	"	"	.337
Beef	"	"	.285
Pork	"	"	.160

In connection with this subject of phosphorus it is an undoubted clinical fact that an insufficient supply of fat lessens the absorption of phosphoric acid, so that the natural taste for fatty foods which lawn tennis produces may be in part due to the natural demand of the nervous system for phosphorus.

Potassium is the chief mineral found in our muscles, and is found in huge quantities in olives, and also in potatoes, prunes, grapes, peaches, and many other things. Sodium and chlorine combined make up 60 to 70 per cent. of the mineral matter in the blood, and are the chief ingredients in the saliva and the digestive fluids. One can get sodium and chlorine best out of Gruyère cheese. Spinach, strawberries, apples, figs, and eggs are good for sodium alone, while chlorine can be had from milk, red-cabbage, cocoanuts, celery, and radishes in plenty. German professors have found that the digestive processes depend chiefly on the electric action produced by the presence of sodium and chlorine and iron in the blood. Iron can be had from strawberries, gooseberries, and lettuce, among other things. Sodium is also found in the bile. Sulphur and silicon produce the growth of hair. Sulphur abounds in figs, beans, carrots, cocoanuts, and red-cabbage; while silicon is found in immense quantities in oats and barley, and also in strawberries.

cherries, and figs. Silicon combines with lime and magnesium in building up our bones and teeth, so oats and barley ought to be very freely used. Magnesium can be had from walnuts, almonds, Indian corn, &c. We thus see that the gladiators' diet of barley, figs, and oil supplied them with much mineral matter, especially lime and silicon. Professor Voit, of very high repute, believes that we need as much mineral matter as proteid per day; and it is certain, in spite of Hutchison's assertion to the contrary, that an ordinary diet does *not* contain either the right amount or the right kind of minerals.

Lastly, it may be noted that minerals have a strong antiseptic and germicidal effect in the body. Carnivorous animals get their minerals by eating not only the flesh but the blood, bones, and bowels of their victims, which contain most of the minerals, while flesh contains little beside phosphorus and potassium. Had I known what I know now about food, had some body of school or University professors instead of squabbling about compulsory Greek required a hygienic "little-go" whereby one should have learnt facts about the uses of fruit in athletics, the sources of muscular power, and the constituents of a Sunday breakfast at half-a-guinea a head, I, for one, know that, apart from other advantages, my record at lawn tennis would have been very different from what it is. And if a little of the logic of the digestion and the purse could be taught in the "little-go" it would be much more convincing than that of Jevons or Paley.

With regard to tea, the total absence of alkaline food, except during the short strawberry season, must be reckoned a serious drawback. Among the lower classes the amount of watercress and lettuce consumed at this meal is astonishing, but I doubt if they are very digestible, except for a mechanic. As an alternative beverage to tea, I suggest that fruit-juice, especially plum-juice, served hot and sweetened with saccharin only, is well worth a trial. Tea and coffee, although excellent in their way, have nothing alkaline about them, whereas fruit-juice has. Cocoa (unlike tea) has an alkaline and not an acid reaction. I have always found

our white bread, except when toasted, a most astringent, indigestible, and insipid compound, although I know it is "quarrelling with my bread and butter" to say so. J. Smith mentions a proverb current among sailors in the whale fishery, viz., "The coarser the bread, the better the health." Sailors living practically on bread alone get to know its food-value better than we do.

The outer husk of the wheat has a strong aperient effect, but is banished from white flour "for the look of the thing." It is the miller and not nature who makes wheat-flour constipating.

I now come to the last and by far the most important meal of the day. Few people who have played much in tournaments will be disposed to deny the value of meat as a food (if no palatable substitute be obtainable) at the end of the day. Whatever joys the eating of flesh-food cooked in the most skilful manner can produce are better understood by the players in tournaments than by most people. They have the appetite which long physical exertion in the open air alone can give, and they get much of the cookery which few but the chefs of good hotels can produce. Moreover, I am well assured of one thing, viz., that unless one is able to obtain some sufficiently nourishing and agreeable kind of hot food, *which is relished*, it is far better to dine off hot roast fowl, for example, than to retire insufficiently nourished with unsavoury food after the tremendous wear-and-tear of a day's tournament tennis. In the latter case there is every probability that insomnia will ensue, causing a visit to the hall-porter with a view to an early breakfast off biscuits and cheese at about 2 a.m., like the Albanians in the month of Ramazan. As an illustration of this I may mention that as an experiment I dined regularly off what are called "nut meats" while playing at several tournaments. I found that my power of playing suffered, because the "nut meats" were not sufficiently palatable in themselves to induce me to eat enough of them for proper recuperation, but when mixed with cheese, &c., they are very good. At a time like the present, when every menu at almost every restaurant in the country asserts an anatomical lie by its contents

(viz., that man is a carnivorous and not a frugivorous animal), the choice of the fleshless feeder is very limited. Usually he can choose between (1) the eternal eggs, (2) raw cheese, (3) potatoes, (4) ordinary green vegetables—which, although excellent for mineral matter, are not nourishing, (5) porridge occasionally, (6) sweets. Our vegetarian friends who pass the day in offices may please themselves with their menus of apples, toast and water, &c., but after ten sets this sort of thing is not very alluring.

I have described at length in my other work the composition of a suggested substitute for meat, and the scientific advantages which it possesses, especially with regard to mineral salts and freedom from "nuclein" bodies. After dining off variations of it for six months, I believe I am right in thinking it palatable, and I know it to be highly nourishing. One takes half a cupful of stewed and mashed white haricot beans, half that quantity of Groult's chestnut flour (or any other meal made from nuts *previously* cooked and reduced to a fine powder), and two cupfuls of grated Parmesan cheese. These are mixed together with a stewed and chopped-up onion and plenty of mint or sage. A couple of pounded hard eggs can be added if desired. The mixture is fried as a cutlet and eaten with green vegetables. The advantages I claim for it are as follows:—(1) It is far more nourishing for an athlete than the same quantity of meat. (2) It is far more digestible. Of this I am certain from my own experience. (3) It is rich in mineral salts, such as lime and iron, which are most necessary to athletes, and of which meat is wholly destitute. Beans also contain very much phosphorus. (4) It does *not* contain any of the poisonous purin bodies or "extractives" which abound in flesh, and especially in fowl and calf's liver, which form the real drawback to the eating of flesh food. (5) The grated cheese has an antiseptic action in the intestine (Salkowski), whereas meat has a septic action. (6) It produces very little uric acid, whereas meat is a great source of it. (7) It tends to produce much sounder sleep than flesh food. (8) It causes no bad taste in the mouth at night, as a meat meal, after long matches,

almost always does. (9) It is a great deal cheaper than meat, if common cheese be used. (10) When properly made it is highly palatable. (11) Most of the "chills" so fatal to athletic success are stomachic chills, due to too much flesh food. This kind of food reduces the chances of catching cold immensely, as I have myself proved. (12) Meat has an acid reaction; all the constituents of the outlet, except eggs, have an alkaline reaction. A specimen dinner for a lawn-tennis player, who has played perhaps 120 games in the day (about the usual maximum), should, according to my idea, be something like the following:—Thick pea soup (very hot); then outlets as above, served with potatoes (mixed with much butter), green vegetables, mushrooms, and braised onions (the mushrooms should by no means be omitted); then hot fruit tart, stewed fruit, hot cabinet pudding, with a ninepenny jar of cream, and, lastly, a slice of ripe melon, or grapes or oranges. Oranges often seem like nectar after muscular fatigue, but a melon is *the* fruit after much tennis.

As for drinks, the most restorative thing I know is hot milk; but few people will drink it, because of "the look of the thing." The late Sir Andrew Clark seems to have originated the plan of forbidding people to drink at all with their meals. In the case of people leading a sedentary life, who need very little liquid, and take a good deal, it may answer very well, but he would have found but few lawn-tennis players to agree with him, for in many cases, after long matches, liquid, and especially hot liquid, perceptibly doubles the relish for food. In fact, without the liquid one would often hardly care to eat the food. Hutchison says that liquid hastens the digestion of some foods by softening them and turning them into pulp. The temperature both of foods and "drinks" is an important question, as may be gathered from the facts that digestion, *to some extent*, depends on the temperature of the food ingested, and that hot foods or drinks "increase powerfully the movements of the stomach walls and cause the pylorus to open." Hutchison also says that cold food does not excite the movements of the stomach, and that there is a special craving for alcohol in those who cannot get

hot meals. We all know that sometimes, especially in hot weather, cold food is much nicer than hot; but at night, after any kind of outdoor exertion, the heating of a dish often makes a vast difference in our enjoyment of it and also in its digestibility. The question of the right amount of liquid is of the greatest importance to lawn-tennis players, as it is to all athletes. How much their extreme caution and discretion in this matter before they play important matches may have contributed to the wonderful successes of the brothers Doherty we do not know, but their caution is undeniable. One of the chief drawbacks connected with alcohol at meals lies in the fact that it prevents one from perceiving whether one is hungry or not, so that one eats what is on the table whether needed or not. This accounts for many failures at lawn tennis. The size of English cups, which often hold six times the quantity of a Turkish coffee cup, undoubtedly favours excesses in liquid, which, whether alcoholic or otherwise, are most pernicious in their effect on the eye and the "wind." On the other hand, there is nothing so restorative as hot liquid at the right time and in the right quantity. If one has had hard matches before lunch, hot tea or coffee at that meal will often make all the difference between success and failure afterwards. But the great thing is to find out when thirst is really sated, and then to stop. It is an excellent plan to satisfy thirst with fruit when one does not want a restorative, but merely a thirst-quencher. The presence of too much liquid in the stomach, which stops there for about an hour and a half, is most fatal to success at lawn tennis. *At meal-times it is always well to recall the kind of food of which one partook freely at the last meal, and, unless the interval has been very long, the chances are that one will want not that, but a different kind of food (whether proteid, fat, or carbo-hydrate) at the next meal.* The great thing is to find out what one really craves, and if the player finds, for example, that he does not relish meat dishes even after long fatigues, he should "eat" them without hesitation, and dine off tarts, fruits, and puddings. All food which is not

relished does positive harm. The excitement of long matches in the sun often affects the relish for proteid. The only other observation about lawn-tennis training which I shall make relates to the need for keeping warm before matches. If one is cold, and one's opponent is warm, the latter gets a big advantage—at least for a set. Moreover, unless one is tired, it is the greatest mistake imaginable to remain inactive, watching matches, &c., for a long time before playing a match. To umpire, especially, on these occasions is a most certain method of getting "put off." "Knocking up" is the best prelude to a match, but if one cannot manage this, or has had enough of it, the best preparation I know is a game of billiards, because *it is good for the eye and the hand*, and keeps off what is known among athletes as "needle," i.e., nervousness.

According to my experience, the best preparation for an important match, *on the day before it*, is hard match play which is not too prolonged. If, however, this cannot be had, or if there is a tendency to staleness, there is nothing in the world which affords a better preparation than a run across country or on the roads for anything up to five miles, according to one's condition. The chief thing about it is that a player is thereby enabled to *play his true game*, which is by no means always the case.

The beneficial effects of perspiration induced by exercise and the power of lawn tennis in producing it render the game almost a necessity in civilised life. Every athlete knows that feeling of peace with himself and all the world which is induced by heavy perspiration followed by a bath, so it may be remarked here that the pores of the skin ought naturally to form *the fourth excretory organ* beside the lungs, liver, and kidneys. When this organ is freely used the strain on the others is greatly lessened, but in cold climates in the winter many of the well-to-do scarcely use this organ at all except in enervating Turkish baths. Hence the other excretory organs are often overworked.

Before concluding this paper, I have to say something more about nitrogenous food, because I am aware that the views expressed in this chapter on that subject are most

heretical. "Proteid" is nitrogenous food in an assimilable form. It is produced by the action of heat and an alkali on albumen and casein. Two French doctors, MM. Macaire and Marcet, have proved that the blood of the herbivora contains as much nitrogen as that of the carnivora. Nitrogen is also present in their muscular tissues, &c., to the same extent. How did it get there? For in the case of such animals as the goat and the chamois it is simply a violent fiction to suggest that they get their proteid out of their food alone. And this is so in the case of all the grass-eating animals also, whose food often only contains a trace of nitrogen, yet nevertheless they develop great muscular power, and possess as much nitrogen in their system as the carnivora. The plants which produce the bean and the lentil have the power of absorbing nitrogen (by means of parasitic bacteria) from the air, which contains 73 per cent. of it, and of producing a nitrogenous substance by combining it with hydrogen. Now, the experiments of Sir Humphrey Davy and others have proved that men often absorb as much as 2246 grains of nitrogen in a day, and that they often absorb more than they exhale; and as no one knows what happens to this surplus, it has been supposed by some that it combines with nascent hydrogen in the capillaries or the intestine to form ammonia. Nor can I see anything unreasonable in this, in view of the undoubted facts about (1) herbivorous animals; (2) the rice and date eating races of men—*e.g.*, Hindoos and Arabs; (3) the potato-eating Irish, French, and Poles; (4) my own experiments with cream, butter, potatoes, and sugar after prolonged exertions in tennis tournaments. These four things in no case contain more than 2 per cent. proteid, yet I believe most people who know anything of hard tennis would agree that if any person needs "proteid" in abundance a lawn-tennis player should need it. We have it on the authority of Hutchison himself that proteid can be transformed by digestion into fat. J. Smith also points out that vegetables, such as peas and beans, when supplied with ammonia (a mixture of nitrogen and hydrogen), can form gluten (proteid) out

of what would else have been starch. Prout and Sylvester also said that there was reason to believe that vitality decomposes the substances which chemists call elements, and that we have no right to assume that the vital forces possess no higher energies of analysis than are exerted by the chemical agents of the inorganic world.

The conclusion J. Smith draws from this is that "By the vital agency the food is formed in the stomach and intestine into *new compounds* by a rearrangement of their elements and by a combination with those of the atmosphere, thus producing *either proteid or fat as the wants of the system may determine*. If the tissues are wasted by exercise, more oxygen and nitrogen are supplied by the atmosphere—so as to prevent the formation of oleaginous compounds—and the albuminous principles that result are converted into fibrin to renovate the system; but, if sedentary occupations preponderate, less fibrin becomes necessary, and an increase of fat is the consequence."

There are very strong reasons for inserting the above extract, even at the risk of wearying the reader. Almost every English authority on diet insists on the necessity of a heavy ration of proteid food daily (in the form of "Plasmon" and other patent foods), and drives the nail home by referring to the fact that most of the substance of the muscles is composed of nitrogenous matter. These gentry are most careful never to suggest that *there can be any other source of nitrogen for the tissues except the food*, although it is practically certain that there is, such as the secretions of the various viscera, which may possess a converting power. They also always reason as if the body had no more chemical power than a chemist, whereas Sylvester Graham has pointed out that "We have reason to believe that vitality decomposes all those substances used in its economy which chemists call elements, and that in arranging its various organic substances and structures its synthetical operations are very different from those of inorganic chemistry." When we reflect that some of the patent "proteid" foods so industriously advertised by certain writers are admittedly made from a

waste dairy product, viz., dried skim milk deprived of all its cream, we can see at a glance that it is to the interest of the vendors and their hired scribes to bolster up and exaggerate the importance of proteid, while the value of cream is depreciated and decried. Moreover, the profits arising from the sale of dried skim milk at a high price must leave a large margin for advertising purposes. I notice that north of the Tweed the belief in the nourishment of skim milk greatly decreases.

I have risked wearying the reader with this discussion for several strong reasons. In the first place, almost every English medical authority on diet lays it down that a large amount of proteid food is daily necessary for a healthy person. I ought to remark that nearly all of these people are destitute of practical athletic experience as to the effect of foods on the bodily powers. They justify their creed by pointing to the composition of the muscular tissues, which is largely nitrogenous. As to the effects of the over-feeding in proteid which they so studiously recommend, I say, firstly, that it is fatal to athletic success; secondly, that by producing too much uric and sulphuric acid it destroys bodily ease; and, thirdly, that by beclouding the mental faculties it has tended more than any other physical cause to blast our industrial efficiency as a nation. If one looks at the amount of nitrogenous tissue in a human body which is displayed at the food museum, the inference that a heavy proteid diet is a necessity would be inevitable but for facts such as those set out above. The body is not merely a chemist's laboratory.

The account of certain experiments in diet on a large scale in a book called "Physiological Economy in Nutrition," by an American medical professor, Dr. R. H. Chittenden, strongly confirms the conclusions set out above. I must say a word at the outset about the vivisection experiments he describes. To starve a dog for a week and then rip open its stomach while it is alive must be reckoned one of his more humane proceedings. The Professor is a decided opponent of vegetarianism, and believes in an "omnivorous" diet, but his analyses of meat led him to the conclusion that

people in general, and especially athletes, would be healthier on a much smaller ration of meat and other nitrogenous food than they usually take. He draws attention to the difference between the waste products of the digestion of fats, starch, and sugar, and that of all flesh food: "Fats and carbo-hydrates when oxidised in the body are ultimately burned to simple gaseous products—viz., carbonic acid and water. Hence these waste products are easily and quickly eliminated." Of flesh foods he says: "These substances when oxidised yield a row of crystalline nitrogenous products, *frequently spoken of as toxins* (poisons), which float about the body, and may exercise more or less of a deleterious influence upon the system. *Hence the importance of restricting the production of these bodies to the minimum amount.* He also says that these poisons affect the chemical composition of the blood, that the nervous system is most sensitive to changes in the blood, and that the centres which produce muscular action are controlled by the nerve fibres. Some of these poisons "slightly retard the action of the heart." Others have "a marked toxic action on men and dogs." Others are "important factors in the production of febrile temperatures." Speaking of the digestion of meat, which he calls "the breaking-up of cell-protoplasm," he says, "It needs very little imagination to see that a large amount of energy is used up in passing on these nitrogenous waste products from organ to organ, or from tissue to tissue." Thus we find that the sense of fatigue in athletes is often due to *the poisonous products of flesh food.*

In view of these facts, the Professor induced a considerable number of professors, soldiers, and athletes (twenty-six in all) to submit to a "test" lasting five months with a gradual reduction of nitrogenous food. It was previously supposed that 5oz. of proteid per day was the minimum for a healthy man. All the Chittenden "subjects" reduced their allowance by degrees to about 1½oz. or less per day, with some striking results. (1) It was proved by means of the strength-machine that in the case of the athletes and the soldiers *their muscular*

strength increased inversely without exception as their supply of proteid lessened. The "form" of the athletes improved also. One of them won two championships, another "won points for the first time" at some game, and another "put up strong and aggressive games in the Basket Ball team." (2) *The athletes in full training found that they wanted no more proteid than the professors.* This striking fact is thus explained by Dr. Chittenden: "The energy of muscular contraction comes preferably from the oxidation not of the nitrogenous or proteid constituents of the muscles, but of the non-nitrogenous components of the tissue, another reason why excess of proteid food may be advantageously avoided. . . . The energy of muscular contraction does not come in any large degree from the breaking-down of proteid matter." This last sentence ought to be framed and hung up in every college hall.

He sums up his conclusions by saying, "It is not proteid that the athlete's work wants." It appears from the above experiments that the waste of proteid tissue in the body in general remains constant, and is not appreciably increased by exercise. Hence we see the absurdity of unduly increasing the supply of beef for men in training, since lean beef contains less than 6 per cent. of the fats, sugar, and starch which produce the energy of muscular contraction.

The last point from Dr. Chittenden's book which I shall mention here is an important one. "We seemingly forgot," he says, "that the energy of muscular contraction comes not from the food-stuffs present at the time in the stomach and intestinal tract, but rather from the absorbed material stored up in the muscles, and which was digested and absorbed a day or two before." And, again, he says: "The ability to endure continued muscular strain depends upon the nutritive condition of the muscles involved, and not upon the food contained in the stomach. . . . It is certainly far more rational from a physiological standpoint to leave the hearty meal until the day's work is accomplished, because a large amount of energy is needed for secretion, digestion, absorption, and peristalsis, which are

of necessity incited by the presence of food in the stomach."

My idea of the parts played by a square meal overnight and by a lunch of sugar food in the production of energy may be expressed by a financial simile. The heat and energy supplied by the sugared tapioca pudding represents the "small change" necessary for small purchases for one's immediate wants, but the substances stored up in the muscles by the overnight meal represent the balance at the banker's, which must be drawn on to meet the heavy demands made by a long match which the small change would be wholly inadequate to discharge. It is of no use to take extra nourishment a couple of hours (or less) before a hard match in order thereby to obtain extra energy, because only a small amount of it will then be available for energy, and the rest will merely burden the system.

It may interest the reader to see the kind of bill of fare provided for the subjects of the Chittenden experiments. Here is a typical one: Breakfast—Fried hominy, syrup, banana, butter, coffee. Lunch—Fish balls (one part fish, five potato), bread, potato, tomato, apple sauce, coffee. Dinner—Cabbage, bread, butter, potato, cranberry sauce, sponge cake, tea. Personally, I should want more cream, pastry, jam, and cheese savouries to make it "worth while."

It is impossible to disregard the importance of the fact that no fewer than twenty-six people took part in the experiments, or that they one and all benefited by the reduction of their usual proteid ration by two-thirds. It has been suggested by Mr. Broadbent in a vegetarian paper that the athletes will feel ill-effects later on which did not show themselves during the five months which the experiment occupied. But it is well known to all trainers that there is nothing more sensitive to the general state of health than athletic efficiency. The best-trained man is he whose general health is best. It is quite inconceivable that if these American athletes were being constantly underfed in an important particular their athletic powers could have been not merely maintained but much increased. The least distemper of the body inevitably decreases athletic efficiency.

It is very widely held in England that, whatever else may be said against it, meat is *the* right food for people who have any fighting to do. This belief no doubt arises from the temporary inflaming effect (similar in kind, though not in degree, to that of a brandy and soda) which hot meat produces. It is, however, my experience that most of the remarkable performances in games and athletics are done chiefly through self-possession and a certain mental calmness, even during violent physical effort, which is very different from the kind of physical intoxication produced by a stimulant. Moreover, as regards ferocity, we have the example of the frugivorous gorilla, which can overcome even a lion, and which can twist a gun-barrel with its fingers.

DIET AND TRAINING.—III.

The Bethnal Green Food Museum—Its great practical value—"Nucleins" the chief drawback about meat—English tastes in food represent the hunt for hydro-carbon—Percentage of fat in favourite dishes—"The belly has no ears"—The truth about its "rich, beefy flavour"—The ideal meal; much enjoyed and soon forgotten—Lethargy after meat lunches—Time of digestion of beef-steak—"The thirtieth milestone"—Excess of proteid the curse of the well-fed classes—Facts about cheese—Raw cheese indigestible because infiltrated with fat—Invaluable in cookery—A dozen reasons for eating cheese—1lb Cheddar equal to sixteen glasses of milk—Cheese and uric acid—Cookery a momentous matter abroad—Absurdity of cheese at end of meal—Fleshless outlets little studied in America—Fleshless diet a big asset in athletics—Far easier to "get back into form" on it—One square meal of proteid per day—Labourers' "blocks of bacon-fat"—Diet of Brassey's navvies—Hutchison on proteid—A "vegetarian" diet may mean anything—Dynamic and scavenging vegetables—Facts about eggs—Nature's tabloids: very rich in minerals—Men *versus* bullock for economy—Dr. Alexander Haig—"Diet and Food"—His chief contention—An echo of Liebig—Facts to the contrary—Strawberries and cream in the production of force—Haig on athletic fatigue—His panacea for immortal strength—Salicylate of soda and bread and cheese—Controlling the incidence of fatigue—Effects of drugging on lawn tennis—Haig on meat and alcohol—Hutchison on alcohol—Bunge on alcohol—Its paralysing action—Experiments on soldiers—"The calculated quantity of albumens"—Puddings and "plenty of tooth-work"—Vegetarians usually considered milk-sops—Famous fleshless feeders—Cæsar's veterans—Spartans, Greek athletes, gladiators, and Japs—Egyptians—Hercules and Epicurus—Circumstances which test food habits—Food tastes of the author's dog—Intellectual powers of the Scotch setter—"One of Nature's gentlemen"—An average day's work—"Wait-a-bit" thorns—Milk and its products—Pastry and puddings—Obstacles in the way of natural tastes—Unvitiated instincts—The plain English of a fleshless diet—Eggs and raw cheese—Probable loss of strength—The flesh-eating chorus—Thick oatcakes and butter—The wisdom of Liebig, Hutchison, Austin Flint, Haig, and Miles.

THIS appears to be the proper place for stating as briefly as possible some of the reasons (practical and theoretical) on which the system of diet which I advocate is based. Whether the reader agrees with them or not, he will at least find it easy enough to understand

what they are. In the first place, I strongly recommend all who desire to feed themselves rationally or, at least, to get value for their money in food, to pay a visit to that invaluable institution, the Victoria Food Museum, in Cambridge Road, London, N.E. Here they will be able to see with their own eyes the exact quantity of albumen, fat, and mineral matter which one gets in a pound of meat, of cheese, of beans, and of all the chief articles of food. The Museum is a public institution, entirely unconnected with any food sect. I do not desire in any way to disparage the nourishing value of meat, which a lawn-tennis career sufficiently demonstrates at times, and which the popular taste of the working classes also proves it to possess beyond a doubt, but what I do contend is that with that food museum before his eyes a man must be very blind if he does not see that to obtain one's proteid and fat from meat is an absurdly dear process. Moreover, although the museum analysis shows clearly enough the nourishment in meat, it does *not* show the "nucleins" or purin bodies, the "row of crystalline poisons," such as xanthin, creatinin, guanin, &c., which *all* flesh foods (especially fowl and calf's liver) possess, and which form the real physical drawback to the eating of flesh.

I believe that most rational people will agree with Sir W. Roberts that the popular tastes of any nation in food are worthy of the closest attention, because at bottom they are the result of some real and urgent physiological necessity. If one glances at a list of favourite flesh dishes in England, such as beef, mutton, ham, potted beef, foie-gras, tongue, sardines, veal and ham pie, and if one remembers that these things contain on the average nearly 40 per cent. of fat, one can hardly help being struck with the fact that the strong desire for these foods in England really represents *the hunt for hydro-carbon* by a particularly laborious people. It is a most expensive way of buying fat, but the popular desire for these dishes is based on a great physiological truth, viz., the need for hydro-carbon in a savoury form. The people reason correctly enough about their

food, but, unfortunately for their pockets, they *only reason up to a certain point*. It is well known that "the belly has no ears," and as long as food is nice and supplies energy, it is supposed to be a necessity of life.

No doubt most people think that the "rich, beefy flavour" which meat possesses justifies the price they pay for it, even if its nourishing constituents could be obtained from other sources at a much cheaper rate. It may therefore, be well to point out distinctly what this "rich, beefy flavour" really is. It is obtained from certain "nitrogenous extractives" stored up in the tissues which "represent the fragments of broken-down proteid tissue." These extractives yield no nourishment, for it has been proved that the digestion does not act upon them, and *they are, in fact, nothing more nor less than manure or faeces in an earlier stage*. These produce the flavour of all flesh food, and they are those "extra-alimentary" elements in meat of a purely stimulating and non-nutritious character which produce the temporary sense of well-being after a flesh meal is eaten. I did not arrive at my conclusions about diet from a knowledge of the above or similar facts (which I did not then possess), but solely from the practical pursuit of one object with regard to food, viz., that my meals should be "much enjoyed and soon forgotten." I soon found, as thousands of others have found, that if, for example, one wanted to use either brain or muscle soon after lunch a supply of meat at that meal was simply fatal. Every athlete who has taken violent exercise within two or three hours of a meat meal knows very well how long and difficult is the digestion of meat compared to that of some other foods.

To play any match, or to row a course, or run a race while the stomacheic digestion of meat is in process is well known to be most disagreeable. Science comes forward with facts to confirm the results of practical experience. It appears that when that kind of food which is digested in the stomach is taken into it the hydrochloric acid, by means of which this digestion is accomplished, only appears in a "free" state at the

end of the process. *No free hydrochloric acid appeared for three hours after the ingestion of eight ounces of beef-steak.* This exactly squares with lawn-tennis experience. A beef-steak is digested in the stomach, but a tapioca pudding (for example) is digested in the intestine, so that we have here a further reason for the kind of lunch advocated later on. Peas-pudding or mashed lentils are digested in the stomach, like beef, but they do not require that "breaking up of cell-protoplasm" which causes the expense of so much bodily energy in the digestion of meat. It was partly owing to the fact that the postprandial torpor which meat produces is not exactly conducive to success in afternoon tennis matches, but chiefly owing to an increasing sense of the latent physical discomforts attendant on flesh-eating, that I gradually became shy of meat. While the cells of the body are still growing, *i.e.*, until the twenty-fourth year, one does not usually pay much attention to these things, but afterwards, and especially after passing the thirtieth milestone, the fact that the food has now only to repair and not to build tissue vastly increases the faculty of discrimination in food, unless that faculty is habitually blunted by artificial means such as alcohol.

I have the greater confidence in setting forth the radical change which I ultimately made in my diet from the fact that four years' experience of the resources of a first-rate Cambridge college kitchen, followed by several years' sampling of the living at many of the best hotels in all parts of Europe, with the appetite produced by one of the healthiest games in the world, ought to have taught me how to appreciate good food. A very striking scientific reason for limiting the consumption of proteid is to be found in the fact that its digestion *necessarily* generates a large amount, not only of uric but of sulphuric acid in the body (Bunge). No mention whatever of the production of this poison by proteid digestion is made by those advocates of proteid, Hutchison, Haig, and Miles. I have said elsewhere that I know excess of proteid food to be one of the greatest curses of the well-fed classes in England at the present time, and that by far

the greater part of my food consists of fruit, puddings, tarts, cream, and butter; but the example of the working classes confirms my own belief that in general a healthy man has a natural appetite for one square meal of proteid food in the day. At his other meals, even during the hardest work, the non-nitrogenous elements ought, in my opinion, largely to preponderate. Now, in order to obtain a palatable and abundant supply of this proteid I suggest an article of food which, until they have read to the end, will strike most people who know what good living means as particularly absurd. I refer to cheese. Cheese in its raw state, although very fully digested in the intestine, is very hard of digestion in the stomach. This is owing to the fact that it not only contains all the casein or proteid of the milk, but all the fat as well. Consequently Hutchison points out that "the infiltration of cheese with the fat which it contains must always render it an article of diet not easily dealt with by delicate stomachs (i.e., when not grated), for the fat forms a waterproof coating which prevents the access of the digestive juices to the casein. The larger the lumps of cheese which reach the stomach, the slower will this access be. *Hence the importance of reducing the cheese to a state of fine division before it is swallowed.* Only the stomach digestion of cheese is difficult (when not grated); in the intestine it is as easily and completely absorbed as meat."

Personally, I unfortunately knew and cared so little about raw cheese that I do not think I ate it a dozen times in thirty years. Its enormous value as a most sustaining and wholesome food for all kinds of heavy physical exertion I have discovered only too late. The following remarks about cheese do not apply to mouldy or rotten varieties. When cheese is reduced to a state of fine division by grating, &c., and used as a staple article in cookery, its advantages over meat are so great that I believe many people have only to read them to come round to the present writer's way of thinking. Here are some of them:—

1. Most people know that cooked cheese is one of the finest natural relishes in existence.

2. Its power of neutralising acids (the source of most bodily ills) in the stomach is three times greater than that of an equal weight of beef.

3. When it decomposes it yields no sugar, and far less uric acid than meat. The Swiss peasantry, who live chiefly on cheese, with plenty of fruit, are largely free of uric acid troubles.

4. It is rich in phosphorus in an organic form. Phosphorus and lime are the two most essential minerals in the body, and phosphorus is present as an essential constituent in all our tissues.

5. It contains 40 per cent. less water than meat.

6. 20lbs. of cheese contains as much nourishment as 60lb. of beef, and costs half as much. If the reader doubts it let him look at the proteid and fat obtained from a pound of cheese compared with that from a pound of meat, in the Bethnal Green Food Museum.

7. It is infinitely less liable to putrefy in the intestine than meat. This putrefactive tendency of meat is one of the great objections to its use.

8. It is an intestinal antiseptic, like the milk from which it is made (Salkowski).

9. It is especially rich in salts of lime (wholly lacking in meat), and in sodium and chlorine, also lacking in meat, which are directly necessary for forming the saliva, gastric and pancreatic juices; 60 to 90 per cent. of the mineral matter in the blood consists of sodium and chlorine.

10. It is a much stronger "fuel food" than meat. One pound of cheese contains 2000 calories (units of heating power), whereas 1lb. of meat contains 600.

11. Meat has an acid reaction and a septic action. Cheese has an alkaline reaction and an antiseptic action.

12. Most important of all, it yields none of the "nucleins"—*e.g.*, hypo-xanthin, creatinin, guanin, &c.—which abound in meat and are the great source of gout and rheumatism and kindred ailments. It also produces far less bile than meat, which is in itself no small advantage.

The use of 1lb. of grated Cheddar cheese in the cookery of one's daily food means that one thereby obtains the whole of the constituents of sixteen tumblers of new milk, except the water and the milk-sugar. With regard to the uric acid question, Hutchison repeats several times that cheese yields no uric acid, and the fact that the Swiss peasantry, who live largely on cheese and plenty of fruit, are practically free from the disease of "stone" gives colour to the assertion. It appears, however, that the peasantry of the Altenburg district, who live largely on cheese (and probably gorge themselves with it in the fashion too common in Germany), but do not eat as much fruit as the Swiss, manage to produce this disease by their dietetic habits. This merely shows that excess in cheese coupled with a lack of vegetable food is as harmful as might be supposed.

I have no doubt some people will think, after reading the above encomiums on cheese, that I advocate a sort of *Welsh rarebit diet*. The sort of dish I do advocate may be gathered from the description of the specimen cheese, pulse, and ground-nut cutlet which I have inserted in discussing the lawn-tennis dinner. I do not pretend to have studied cookery further than to produce a fleshless dish which is both palatable and extremely sustaining after the hardest exercise, and I am well aware that as soon as a good cook from France or Germany (or some other country where cookery is considered as momentous a matter as it is there) gives his mind to the construction of these dishes with the aid of cheese he will soon multiply the number of them and increase their savoury qualities indefinitely.

In concluding these remarks on cheese I need hardly point out how absurd is our present English arrangement of appending cheese at the end of an ample meal of proteid food, whereas it could easily form the chief ingredient, and a most savoury one also. This is no doubt partly owing to the fact that cheese is mostly eaten raw, and *en bloc*, and that a dish of this in place of hot meat, &c., would be simply revolting. It is quite clear that even in America the fleshless cheese cutlet is not yet much known, from the fact that none

of the Chittenden "experimenters" seem to have included it in their bill of fare, although it would have been eminently suitable to men in their position. On the average, cheeses consist of one-third proteid, one-third fat, and one-third water, but there are considerable differences in the composition of some of them. For example, Parmesan contains 43 per cent. of proteid, whereas cream cheese only contains 8 per cent.; and whereas Neufchatel contains 43 per cent. of fat, Parmesan only contains 16 per cent. Gruyère is the best for sodium and chlorine.

One thing I am able to say most positively about this style of diet, viz., that if the right quantity of really nourishing mixtures be taken (which is a matter *absolutely* for individual observation) the vegetarian or fleshless system, or whatever one pleases to call it, will be found to be a *large asset* in favour of a man who begins to practise or train for some athletic event, because it keeps the nerves in grand order by producing sound sleep, by keeping the blood pure and, by releasing the strain on the digestion caused by flesh food, increasing the "sprightliness" and vitality of the athlete. Nor is there anything surprising in this in view of the mute but eloquent evidence afforded by the teeth, brain, liver, and stomach of a human being that flesh is not a food selected for him by Nature. People who disagree with this should look at the teeth of the gorilla in the South Kensington Museum. It is now an admitted fact that there is no primary form of food in meat which cannot be obtained elsewhere, although most people think there is. It is three times as easy to *get back into form and condition* after a slack and inactive period if in the meantime one seeks one's proteid from cooked cheese compounds instead of flesh. But it is necessary to repeat here the remark of Dr. Chittenden, which sums up the results of his experiments, viz., that *it is not proteid that the athlete's work chiefly needs*.

My own belief is that in an ordinary city life one good dish of proteid food in the day, with perhaps as much at the other meals as is contained in a bowl of porridge, viz., 10 grammes, is ample for an average

man. If much exercise is taken it is possible, of course, to eat a great deal more than this; but my contention is that in this case the amount of *such things as hot milk puddings, or porridge, cream, jam, and butter* ought to be increased. There is, of course, some increase of proteid appetite also, especially in cold climates. A good illustration of this is afforded by the diet of navvies performing heavy work on the railway, which, it appears, consists usually of "thick slices of bread surmounted by massive blocks of fat bacon." Now, in this mixture, assuming the bread and fat to be in equal proportions, there is only about 3 per cent. of proteid, and of this about 1 per cent. is unabsorbed, leaving 2 per cent. actually used, as against 97 per cent. of non-nitrogenous constituents. These facts are peculiarly significant in view of the triumphant way in which the "beef party" in this country often point to the undeniable fact that the foreign navvies employed by Brassey greatly increased in muscular power when fed in the English way. But those who have seen the actual food of the poorer classes on the Continent know very well that the class from which the navvies were drawn live largely on black coffee and dry bread, a diet which is miserably defective in hydro-carbons (fats), which are the great source of muscular power, whereas the bacon eaten by the Englishmen contains 73 per cent. of it as a minimum. It would be necessary to see the previous dietary of these workmen before jumping to the conclusion that flesh food increases muscular power, which is only true in a very partial way. The scrofulous tendency of bacon is mentioned elsewhere.

I cannot imagine anything more misleading or more contrary to the experience gained by lawn-tennis players than the remarks of Dr. Hutchison, the leading English food specialist, on the subject of proteid food. "*Experience seems to show,*" he says, "*that gain in power of endurance and wind is attained by increasing the amount of proteid consumed.*" And again he says, "*Meat does not throw any great strain on the mechanical resources of the stomach, and hence it is among the more easily digested of solid foods.*" He also says that

"the difference between an animal fed on a highly nitrogenous diet and one supplied with little nitrogen is the difference between a steam engine at half pressure and one at full horse-power." It will be seen by these statements that Dr. Hutchison carefully closes all loopholes whereby anyone might discover that possibly excess of proteid is at the root of their bodily ailments, as is very often the case with an English "liberal" diet.

My own experience, which receives the strongest confirmation from the Chittenden experiments described at the end of the last chapter, goes to show that the above statements are the exact opposite of the truth. People who attempt to play, for example, over a championship golf-links on their ordinary diet and find it grossly insufficient, often jump to the conclusion that they want more chops and steaks, whereas hot farinaceous food with cream gives far better results.

In common with many others I have derived much information from Dr. Hutchison's work, but his many assertions about alcohol and proteid compel one to say that he sells us his knowledge rather dear. One of the greatest obstacles in the way of dietary reform, and one of the chief sources of error, consists in that confusing, confounded word "vegetarian." At present the term "vegetarian diet" may mean simply anything from a poor and insufficient diet of greenstuff to a rich and ample diet of cream, cheese dishes, butter, porridge, and nuts. No distinction is conveyed by that word between *dynamic* or power-producing vegetable substances, such as beans and lentils, and nuts, which are digested in the *stomach*, and scavenging vegetables such as cabbage and lettuce, which are digested in the *intestine*.

Personally, I do not see why anyone should hesitate to call himself a vegetarian merely because he eats dairy produce. For there is only one food in this world which can be said to have been beyond all possible argument designed for human consumption, viz., human milk. This being so, I do not see that it can be said to be contrary to the tenets of any rational sect of dietists to eat compounds of cows' milk, which only

differs from human milk in matters of proportion. It appears to me that a vegetarian might just as reasonably refuse to eat bread and cakes and confine himself to raw corn. There is no doubt that eggs are in a slightly different category from dairy food and vegetable substances, but it scarcely seems worth while to coin a new name specially for the egg-eating vegetarians as opposed to the eggless feeders. In view of the recent discussions about eggs as a food for athletes, one or two particulars about them may be interesting here. Their significance to all food-students is, of course, apparent from the fact that they are a sort of tabloid of Nature, containing in a concentrated form every ingredient which is necessary to build the frame of a creature of flesh and blood. They contain no carbohydrate (sugar), because the chicken in the shell takes no exercise. They are especially valuable for the minerals they contain, viz., salts of lime, phosphoric acid, and iron.

In the National Food Museum mentioned above, all the constituents of the human body, including each separate mineral, are accurately represented in their proper bulk, and it is only necessary to glance at them in order to understand the mineral value of eggs. There is, in fact, no other food which is so rich in lime salts as yolk of egg. The importance of this has been previously explained. The yolk also contains a large percentage (1.65) of iron, and the white is splendid for sodium and chlorine, so essential for forming the saliva, gastric and pancreatic juices. The yolk also contains 34 per cent. of fat. Some writers on uric acid assert that the yolk produces it, but this is doubtful, and has been altogether denied by Hess, a German expert. The reason why eggs are undoubtedly constipating, if eaten, as they usually are, with vegetables and with constipating white flour bread (and with bacon which is devoid of carbo-hydrate), consists firstly in the fact that they contain so much lime, and secondly, that they are absorbed with scarcely any "undigested residues" which help to stimulate the movements of the walls of the intestine. Consequently, when one finds that 30 per cent. of the proteid in the

pulse foods is unabsorbed, it is a great mistake to suppose that this is a disadvantage. Rice is constipating because it is too completely absorbed.

Dr. Hutchison points out that the digestibility of eggs depends on "the degree to which they are subdivided" before they enter the stomach, which is another reason in favour of my cutlet, described above. The contrast between the hen and the bullock as regards national economy in food is sufficiently startling. One hen produces the equivalent of 40lb. of meat in the year, which is as much as the produce of two acres of land used for grazing purposes.

In my other work, "The Great Diet Question," I have considered from the standpoint of actual experience many of the statements made by Dr. Alexander Haig in various works, and especially in a book written by him and called "Diet and Food." After a careful and, I hope, unbiased study of his assertions, I have no sort of doubt that if any athlete seriously takes that book for a practical guide, he will have a very "poor time." In view of the number of Dr. Haig's followers, it is unfortunately by no means unlikely that many have already done so, especially as the full title of the book, which has had five editions, is "Diet and Food Considered in relation to Strength and Power of Endurance, Training, and Athletics." The main proposition for which he contends is that force is obtained solely from albumen, and that the urea (ash of albumen) excreted is always proportional to the force produced. He writes as if the science of food had not advanced a single step since Lichig said the same thing, and as if scientists of all shades of opinion, from Fick and Wislicenus down to Dr. Chittenden, had not long since discovered that statement to be unmitigated nonsense.

Mr. Eustace Miles, who swears by Dr. Haig, has said in one of his books that some of the medical profession call the latter "a quack," which is not surprising in view of many of his statements. For example, after the German Army experiments with sugar it is rather strange to find that Dr. Haig writes

(at p. 121 of the last edition of "Diet and Food"): "*It is useless to argue that force is got out of sugars and starches. The contrary has been proved by physiologists*"; and again, at p. 78, he writes, "The effect of starch, oil, and fat in the production of force, is so slight and indirect that it may be neglected." If we accept this statement of Dr. Haig about the effect of fat on force production, we shall have to shut our eyes to

- (1) The diet of the ancient gladiators, which consisted largely of figs and oil, and which was certainly calculated to "produce force."
- (2) The diet of bacon-fat adopted by navvies.
- (3) The diet of the Swiss chamois hunters—viz., fat and sugar.
- (4) The diet of the negroes in the "black belt" of Alabama and of the lumbermen in Canada, which consists mainly of fat and molasses.
- (5) The experiments of Vaughan Harley, who produced nearly as much force on 17½ oz. of sugar per day as on an ordinary diet.
- (6) The diet of the negroes on sugar plantations.

Moreover, I myself carried out the following experiment one summer, which shows conclusively that Dr. Haig's statements are twaddle. I embarked in a canoe at Maidenhead with a large supply of strawberries, thick cream, and sugar, and with the aid of several repasts of this delicious diet I paddled up to Henley one day and back again the next. I found that this mixture at the end of every three or four hours of exertion under a blazing sun formed a delicious and complete restorative of force, and anyone who is in the habit of making long trips on the Thames can prove it for himself. But the cream must be thick and the sugar plentiful. In view of Dr. Haig's statements about the causes of fatigue in athletics, one should not treat his theories too seriously. He says that there are two forms of fatigue—viz., one due to absence of albumens from the blood through a deficiency of albuminous food, and one due to absence of albumens from the muscular tissues. I may remark

here that a long series of experiments by Fick and Wislicenus, Voit, Vaughan Harley, Mosso, Chittenden, and many others have shown that muscular force is *not* chiefly due to albumen, but to fats and carbo-hydrates.

Dr. Haig says nothing about a *third* possible cause of fatigue, viz., violent exercise, which sometimes produces it in the most perfectly nourished body, *e.g.*, of a 'Varsity oarsman. The Doctor seems to desire to prove that he himself can confer immortal strength and energy on his followers (p. 43), for otherwise it would be hard to understand how any sane man could write that "by means of diet it is possible to prevent completely the latter form of fatigue, leaving the individual who thus controls his intake *liable only to that form of fatigue which is due to poor or irregular food supplies.*" The plain inference to be drawn from this unparalleled statement is that if you follow the Haig diet system, and eat enough food, you obtain immortal freedom from fatigue. At p. 44 he says definitely, "I can absolutely control the incidence of fatigue by controlling uric acid."

Dr. Haig gives full details of the means he adopts to prevent fatigue No. 2 in athletes, which I particularly commend to the notice of people who "coach" crews, such as Mr. Fletcher and Mr. Muttelbury. The immortal strength is obtained by "a course of salicylates (an aperient drug), to be left off on the day of exercise, or else by giving acids, mercury, &c., to temporarily clear the blood at the time of exercise. In fact, *it matters not how the blood is cleared* so long as it is kept free during the exertion." Elsewhere Dr. Haig says that this sort of thing "almost puts an untrained man on a par with a trained one." With regard to the system of artificial compurgations by drugs which Dr. Haig advocates as a preparation for athletic contests, I can only say that experienced lawn-tennis players would ask nothing better than that their opponents should follow Dr. Haig to the letter, because they know very well that, although drugs "clear the eye" for tennis, yet directly a man's stamina is at all strained by the fatigue which inevitably comes in a hard match, the weakness caused by *a course of drug-*

ging will cause a collapse of the nerves and of the muscles in the untrained man. There is nothing which more surely or thoroughly tests a man's previous mode of living than a lawn-tennis match. Hundreds of times one sees brilliancy collapse after a set or two, when the pinch comes, and when, without the stamina which rational modes of life alone produce, the nerves are unequal to the strain which is put upon them. A man may know how to make all sorts of brilliant strokes, but if his body has been debilitated by "a course of salicylates," &c., he is certain to become flurried or "rattled" by fatigue, if the match be close, and unable to display that which he knows. Dr. Haig's statements about the action of meat and alcohol in athletics are on a par with those already quoted, for, when considered either in the light of science or experience, they will not "hold water" for an instant.

At p. 39 of the fifth edition of "Diet and Food" he says: "The effect of swallowing animal flesh is that the albumens are quickly digested and rendered available. As a result, the meat-eater is sooner in a position to evolve large quantities of force than the man who gets his albumen from a less stimulating source." As a comment on this statement I invite the reader, firstly, if he be a lawn-tennis player, to consider whether a meat breakfast or lunch produces the "quick evolution of large quantities of force," and, secondly, to consider the facts mentioned above as to the three hours which elapsed before any free hydrochloric acid appeared after the digestion of beefsteak, and, thirdly, the facts stated elsewhere in this article (from Dr. Chittenden) as to the strain put upon the digestion by "the breaking up of cell-protoplasm." It is usually supposed that both Eustace Miles and Dr. Haig are opposed to meat-eating and alcohol, but after a careful study of their works I have come to the conclusion that, were I a butcher or a wine merchant, I should subscribe for a complete edition of their works, especially those of Mr. Miles. At p. 76 Dr. Haig says, "Meat is a stimulant quickly digested, absorbed, and worked off, while cereal food is more slowly assimilated," which I, for one, say to be directly contrary to the facts of ath-

letic experience. His remarks about the effect of alcohol on the digestion of food, which are identical with those of Dr. Hutchison, are such as not only every unbiased physiologist but every cricketer and tennis player knows to be absolutely incorrect. It appears (from p. 118) that it "*brings about the metabolism (digestion) of albumen*, and converts it into available force and urea in one hour, while without the stimulant the same albumen might have taken three or four hours." Such is Dr. Haig's account of the action of what is now well known to act chiefly in *retarding the digestion*. If the above statements were true, it is clear that the best preparation for a match at two o'clock would be a beef-steak at one o'clock with a bottle of claret. He also says that a stimulant "increases the available force only so long as there is albumen for it to act upon," whereas all tennis players know that a stimulant often produces its greatest effect on an empty stomach. It is clear that many people are deluded by this sort of nonsense about alcohol, for otherwise Hutchison himself would scarcely have suggested that "two pints of Allsopp contain one-fifth of the energy required daily" by a working man. Alcohol is indeed an admirable source of energy, inasmuch as it acts in every case by *paralysis*.

Hutchison asserts that alcohol hastens the digestion of food by stimulating the movements of the walls of the stomach, although he admits that its presence in the stomach primarily retards digestion, which he could scarcely avoid admitting in view of Sir W. Roberts' statement (among many others) that 1 per cent. of alcohol in the digesting mixture brought the conversion of starch to a standstill. Now, with regard to this fable about the effect of alcohol in hastening digestion, some very striking evidence is available from a book called "*Physiological and Pathological Chemistry*," by a Bâle professor named Bunge. The horror inspired by the nature and quantity of his vivisection experiments is in no way lessened by his European reputation and vast researches, but he is at least a witness about alcohol who is unbiased by sentimental leanings. He says: "The intensity of this digestion, this conversion

of potential into kinetic energy, is constantly regulated by a complicated nervous mechanism. To interfere with this self-controlling mechanism by the action of poisonous substances (alcohol) can hardly be wise."

He also points out that the retarding influence of alcohol on the digestion has been conclusively proved by many kinds of experiments, with a stomach pump, &c., and he says (at p. 119): "In connection with the sanitation of armies, thousands of experiments upon large bodies of men have been made, and have led to the result that in peace and war, in every climate, in heat, cold, and rain, soldiers are better able to endure the fatigues of the most exhausting marches when they are not allowed *any alcohol at all*." He also says, in a very striking passage: "The stimulating action which alcohol appears to exert on the psychical functions is also *only a paralytic action*. The cerebral functions which are first interfered with are the powers of clear judgment and criticism. As a consequence, emotional life comes into free play unhampered by the guiding-strings of reason. The individual becomes confiding . . . in fact, he no longer clearly sees the dangers and difficulties of life. *As the power of criticising oneself diminishes, self-complacency increases.*"

I cannot imagine anything more definitely calculated to produce ill-health, constipation, and a resort to drugs among athletes than Dr. Haig's statements about albuminous food. He says that hunger is in general to be met only by albuminous food (which is in itself a huge fiction), and that "if the day's work is not done easily, and without *anything approaching exhaustion*, an increase of albumen is required." Among the well-fed classes, in seven cases out of ten it is the excess of albumen which partly produces the exhaustion.

I wonder what diet would enable a 'Varsity oarsman to row from Putney to Mortlake "without anything approaching exhaustion."

Dr. Haig also says: "It is a good rule to take *nearly the calculated quantity of albumens*"—i.e., rather more than five times as much as was required in the Chittenden experiments—"in the form of milk, cheese, and bread, and then, if on account of increase of exercise

there is increase of appetite, let the useful but not strong foods such as rice, potatoes, and fruit be eaten to the desired quantity." Apart from the light thrown on such a statement by the Chittenden experiments, I believe there are plenty of athletes who know that "it is *not* albumen that the athlete's work wants," but hydro-carbons and carbo-hydrates. He also denounces fruit at breakfast, and speaks of the "almost valueless fruits and vegetables," whereas the mineral matter they contain is as essential to life as any other element of food whatever. All who have experienced the beneficial effects of fruit at breakfast will form their own opinion of Dr. Haig's exclusion of them.

The last piece of Dr. Haig's advice which I shall quote relates to soft milk puddings, which, after prolonged exertion, especially in a rough climate, are well known to be among the most grateful restorative and eminently digestible dishes in existence. Dr. Haig accordingly cautions us "not to mix milk with starchy foods into slops, porridges, and puddings" (I wonder what the Scotch would say of Dr. Haig), and advises dyspeptic persons to have them made "so firm that they can be cut with a knife" and will require "plenty of teeth work."

I have now done with Dr. Haig. I know very well that as I have been driven in my search for gastronomic comfort and enjoyment into a flatly fleshless diet I shall incur the suspicion of "milk-soppiness" and effeminacy under which many of the English vegetarians at present undoubtedly labour. But I shall not trouble myself much about this, for I am in very good company. Firstly, there are all the veterans of Julius Cæsar's army, who lived on a fleshless diet and were not generally reputed effeminate. Then there are the Spartans in their best days, and the Greek athletes of Olympia, who, it is explicitly recorded, found that meat-eating made them stupid. The gladiators who had to play in tournaments where lives and not "pots" were at stake lived on barley, figs, and oil, which is rather like the diet of Grape Nuts, fruit tarts, and cream which is advocated here. Then there are the "Japs," and Hercules himself (who fed on peas pudding), and

there is Epicurus, who was a vegetarian, and doubtless found that the digestion of meat needed more exertion than it was worth, and that he obtained more peace of mind on a vegetarian diet. It is no doubt rather a far cry from Cæsar's soldiers to some of the modern vegetarians, but the fact that many fads find refuge under the wings of the English vegetarian movement at present cannot erase the great facts which are graven on the walls of time anent a fleshless diet. The huge Egyptian monuments were the work of a vegetarian race. Lastly, there is the testimony of the great Cuvier and other of the most learned anatomists in the world, that, anatomically, "man is formed for a vegetable diet only."

I have not the least desire to lay too much stress on the food question. The most important thing at lawn tennis and other pursuits is not what a man eats, but what he does. If one leads an active life one can often, apparently, eat almost anything with impunity, provided that plenty of vegetable food is taken. But even in these cases there is always the chance that some circumstance such as a residence on a clay soil or an attack of sciatica may throw a more searching light than usual on the quality of the food. In these cases one sometimes finds that an ordinary meat and wine diet is not quite so harmless as was supposed.

One of the things which first convinced me of the sufficiency of a fleshless diet was the example afforded by my dog (an English black and white setter), an animal not unknown to some of the lawn-tennis world. This gallant creature, after nearly perishing on the horns of an Ætolian bull in the marshes near Lepanto, lived to accompany me through the rest of a Turco-Greek tour which I have briefly mentioned elsewhere in this book. These dogs, partly owing to generations of training by kindly and intelligent fanciers, are often about as high in the scale of created things among the lower animals as any that could be found. In fact, intellectually they strongly resemble apes in being able to do most things except speak. No doubt the scientific nature of their "calling" as pointers has helped to develop powers of all-round reflection which, in a good

specimen, are sometimes almost uncanny, although they vary greatly in understanding.

Anyhow, this particular dog, who appeared to me to be a sort of natural "gentleman" among dogs, always showed the most marked preference for a fleshless diet. This naturally attracted my attention in view of the fact that, according to the estimate of some British naval officers who shot snipe over him on the shores of the Ionian Sea, he galloped on the average between forty and fifty miles in the course of a day. Yet again and again after a day of this kind when he was offered his choice between flesh (such as beef, fowl, or turkey) and sopped bread and water he invariably chose the latter, although Turkish bread must be tasted to be believed. His taste in food after seven or eight hours of wading in morasses, swimming across torrents, and jumping hedges made of the awful "wait-a-bit" thorn (a tropical scourge to cross-country operations of which in England one is blissfully ignorant) may be briefly described as follows:

Firstly, he showed an absolute passion for milk and its products. In Scotland he would often drink half a pailful of buttermilk, and for butter itself he showed a greater craving than for any other food except cream. I have never yet seen him refuse cheese except once. Secondly, he had an immenso liking for sweet pastry and cakes of any kind, including oatcake. As long as any of this or any farinaceous pudding or mashed lentils were to be had, he would never even look at the choicest meat or fowl. In fact, the only kind of animal food which he relished was bones, doubtless owing to the minerals they contain.

As I well knew the extent of his hunting manœuvres, I was naturally struck by the fact that the very foods (except bones) which I myself always preferred when taking most exercise were the ones which he selected to sustain him during his incredible exertions, and I began to inquire into the foundation of the meat superstition, which was already insensibly crumbling in my mind. It has been clearly pointed out by Darwin, among others, that the structure of a dog is in many ways akin to our own, and therefore it appears to me

that its diet during hard exercise is certainly not devoid of significance.

There are, no doubt, great obstacles at present to prevent the average man from impartially judging for himself whether the taste for meat is, or is not, a natural one for him. In order to arrive at a definite conclusion it is necessary first to live on fleshless foods for a month or two. After the natural tastes have had time to reassert themselves on a really appetising fleshless diet *which has been relished*, I venture to predict that unless previous errors in food and drink have been so prolonged as to extirpate the natural instincts altogether, in many cases the most recherché forms of fish and flesh will no longer have power to captivate the eater, because he will perceive that there is something unnatural about them as compared with the foods on which he has been living.

Let us now assume (although it is at present a large assumption) that after a course of feeding on well-selected and well-cooked fleshless mixtures the resulting improvement in health and spirits and pocket causes an individual to make up his mind to avoid all nuclein-containing food for the future, and let us further assume that he has read and observed enough to decide that anatomically he is beyond doubt not a flesh-eating animal. What is the practical result, what is the plain English of a fleshless diet? It must be admitted with regret that in many cases the answer is "Eggs," morning, noon, and night. In the first place, in private life the average cook knows little of fleshless cookery. Secondly, at restaurants and hotels there are very few cheese dishes, and in many cases eggs plain or in omelettes are the only substitute available for hot meat. Although personally I prefer a very low proteid ration and a large quantity of cream, I am of course aware that many people like five times the amount of proteid that I do, and care very little for cream, or cannot procure it, or are physically debarred from taking it. Moreover, many people have no particular liking for sweet dishes which bulk largely in my diet. In general, the seeker after *hot* fleshless dishes (outside his own home) will have to put

up with (1) eggs in some form, (2) plain boiled peas or haricot beans, (3) porridge—vilely cooked except at good hotels, (4) occasionally a Welsh rarebit or macaroni cheese. One can get of course plenty of cold cheese or nuts, but they are not nearly so nice as hot dishes. Now, I do not seek to deny that on a diet of this sort people leading an ordinary city life are liable, owing to this monotonous and unexciting bill of fare, not to take enough or to digest enough nourishment to meet the heavy draughts made on their strength by their various pursuits. Consequently a state of things is often set up in which the outgoings exceed the receipts, and there is a tendency towards physical bankruptcy. If the digestions of city people were usually in full vigour, all would be well, but as a general rule they are *not*. Then will come the opportunity of the general chorus of flesh-eating friends and neighbours, strongly backed by the family doctor, to declare the usual fiction that hard work needs meat and burgundy, and unless the enfeebled vegetarian has a calm and dispassionate eye for scientific facts it is ten to one that he will again be dragged down to the flesh-eating level. He should remember that his facts are true enough, but that the accidents of digestion and the ignorance of his countrymen and their cooks have served to obscure them. A supply of thick buttered oatcakes and plenty of cream at every meal would do much to prevent the evil in many cases, but thick oatcakes can rarely be had in England. Their great recommendation is that there is pleasure as well as nourishment to be had in eating them with butter.

My remarks on diet are now finished, and I hope that those of my readers who are interested in the subject will pursue their investigations, form their own conclusions, and "prove all things" without suffering themselves to be unduly deterred by medical laws about diet which have been "enacted but never discovered." No doubt Professor Liebig was a great chemist, "whose like we shall not see again," but he thought that the chief function performed by the fruit which Asiatics eat to keep themselves cool was "the generation of heat." He also advised "the free use of hock" in cases of gout. And Dr. Hutchison, one of the

best-known English authorities, wrote in 1900 that the vegetarian diet of the Japanese was the cause of their "lack of energy." Also Dr. Austin Flint, a most eminent American, wrote a few years ago that in training one should take "little or no fat and sugar," which are the chief sources of muscular energy. He is followed by Eustace Miles in "Muscle, Brain, and Diet," who says, "Take your proteids, but don't take fattening and heating things." Liebig also said that non-nitrogenous food, by delaying the action of oxygen, hindered the conversion of uric acid into urica, from which the deduction follows that a gouty subject should avoid fruit and stick to beef-steaks. He also said that meat was necessary in order to sharpen the powers of the brain. The Professor evidently did not know much about the Scotch or the Armenians.

Mr. Eustace Miles says that "at present science has not decided whether animals feel pain or not," and with regard to alcohol, he says, "alcohol justifies itself as a useful food, *especially where there is a certain kind of desire for it.*" He also says that a bottle of beer contains one grain of xanthin poison, but that a pound of tea contains 175 grains. No reputation will stand much of this sort of thing.

Dr. Alexander Haig says that a fasting man lives on "*a stimulating flesh diet of his own tissues,*" and at the end of a pamphlet called "Science and the Rule of Mind," he inveighs against our folly in covering ourselves with clothes. "We despise the natural covering," he says, "and swathe ourselves in napkins."

Both Hutchison and Eustace Miles have treated with perfect gravity the statement of Charles Kean, the actor, to the effect that he ate pork, beef, and mutton respectively before playing the parts of a tyrant, murderer, and lover. That the greater difficulty in digesting pork might make the rôle of a tyrant more congenial than that of a lover is just conceivable, but that two writers of education should talk (without the suspicion of a smile) about *subtle differences hitherto undetected by chemistry* between beef and mutton which make one fitter to act the part of the murderer than the lover, and *vice versa*, is certainly most curious.

CHAPTER XIII.

CLIMATE.

Athletes' special knowledge of climate—Its vast effects—Athletes peculiarly sensitive to it—Effect of climate on labourers—Commissioners' Report corroborated by lawn tennis—The writer's experiences—Newcastle and Scarborough compared with Eastbourne—Copenhagen, Prague, and Stamford Hill—Stockholm and The Hague—Effects of climate of Oxford—Class differences partly due to surroundings—Connemara—Orkney—Sutherlandshire—St. Petersburg—Helsingfors—Budapest—Bosnia—Ragusa—Bocca di Cattaro—Montenegro—Scutari—Medua—Dyrrachium—Corfu.

IF lawn-tennis players and cricketers who travel much about the country to play in tournaments and county matches contribute nothing else which is of direct utility to the community, there is one thing they can do almost better than anyone else if they choose—viz., they can give a definite verdict from their own experience about the climate of a great many different places. No one should underrate the effect of climate. Those who have travelled must know very well that climatic conditions and geographical surroundings have an enormous and often unsuspected influence on one's faculties and state of mind, and, above all, on one's energy. The more one travels, the more one perceives that these conditions vary to an unimaginable extent, and that their effect on the welfare of the individual is often almost equally varied.

Moreover, although there are probably but few people who are fully conscious of the effect of climate on their faculties (owing to absorption in the pressing concerns of life), it does not at all follow that they are therefore superior to their effects. On the contrary, one has only to note the general languor of the "natives" in very relaxing places to perceive that sub-consciously they are heavily affected by their climatic

environment, although probably but few of them are directly conscious of the fact. It may sound curious, but it is probably safe to say that athletes, such as runners, cricketers, and lawn-tennis players, are more susceptible, owing to their bodily condition, to what Shakespeare called "skyeey influences" than any other class of people, except outdoor labourers. The latter are, as will be seen by the extracts below, powerfully affected in their *working* capacity by climate, but they are usually much more quiescent in brain and nerves owing to their general habits of life than are the athletes, and therefore probably much less susceptible to climatic pain and pleasure. The quotations I now give are from a book called "The Wages Question," by General F. A. Walker, which is well known at the chief English circulating libraries.

My object in giving these extracts is to compare them with the experience of lawn-tennis players.

The author begins by stating that "it is very far from the truth that a day's labour is always and everywhere the same thing." And then, in discussing the "Differences in industrial efficiency between geographical sections of the same people," he says that "in England the superiority of the agricultural population of the Northern counties is unmistakably very great."

I believe that but few people beside those who have travelled ever consider how much of the foreign superiority in many branches of manufacture may be due to climatic conditions of life among the workmen which are far more enlivening and exhilarating than in certain parts of England. I was much struck when at Frankfort-on-Main and at Brünn in Moravia (the Austrian Manchester) with the superiority of the surroundings and climate to those of a place like Bermondsey or Deptford. The climate of South London is usually most enervating, and it is worth considering how much might be gained by transferring factories to healthy spots on high ground which abound in England, and where people would be far more energetic and less "dead and alive" than in London. The climate of inland Kent, except on the high hills, is too relaxing

for words, especially in September, and the results may be seen in the large number of houses and cottages which have been left unaltered for anything from one hundred to three hundred years, and the sleepy conservatism of many of the inhabitants.

The author of "The Wages Question" asserts the superiority of Nottinghamshire over the West of England, and quotes Bagehot, who said that "to put down as equal the day's hire of a Dorsetshire labourer and that of a Lincolnshire labourer would be like having a general price for steam-engines, not specifying the horse-power. The Lincolnshire man is far the more efficient man of the two."

He then quotes the remarks of some farm bailiffs contained in the Report of a Parliamentary Commission in 1869. One of them said, "I would rather pay a Northumbrian hind 16s. a week than a Berkshire carter 12s." Another said, "Our men here" (in Berkshire) "are very inferior to Scotch labourers. *Two men there do as much as three here.*" Another said that "he was obliged to employ as many men in Berkshire at certain kinds of work as he had been accustomed to employ of women in Perthshire." Lastly, one of them said, "I protest that one of the Scotchmen whom I formerly employed would do as much as two or even three Suffolk labourers." He also says that M. Dupin demonstrated "a decided superiority in productive power of the artisans of Northern over those of Southern France."

All the above has been almost literally corroborated by my own experience, and doubtless that of others, at lawn tennis—a game which, personally, I find is much affected by climate. In the first place, with regard to the "Northumbrian hinds," I found that the air which comes across the immense "town moor" at Newcastle had such an invigorating effect that in separate seasons I defeated S. H. Smith and G. W. Hillyard in the Open Singles, in each case without the loss of a set, and I am not so misguided as to imagine that this would be considered my ordinary form. Another year I won a Double Handicap there in which fifty-two couples had entered; so, personally, I have

reason to agree with the farm bailiff. This season I noticed from the papers that W. V. Eaves was playing much above his form at Newcastle, and this I readily believed. Scarborough is also a most exhilarating place for play, and in many years, however erratic my form had been previously, I never failed to reach the prize round in something; whereas, at Eastbourne, a place I visited quite as much, I never reached a final round in anything. As regards the general superiority of North to South, my own experiences strikingly bear this out in respect of matches with four other players, viz., W. V. Eaves, E. R. Allen, M. J. G. Ritchie, and J. M. Flavell.

At the end of the season 1903 I played Eaves at Folkestone in the final of the Open Singles, and lost by three sets to one. The climatic conditions were those of Folkestone in August: I do not think I need say more than that. I next played him in July, 1904, in the bracing air of Sheffield, and won without the loss of a set. We met again in the still, relaxing climate of Homburg a few weeks later, and the score in games and sets in Eaves's favour was exactly the same as it had been in my favour at Sheffield. At the same Sheffield Tournament I had a match against E. R. Allen, which lasted close upon two hours before he won the match with an advantage set by three sets to one; but on playing him again at Epsom (a most relaxing place) a few days later, I was easily defeated. My experiences with M. J. G. Ritchie in 1902 were curious. At Copenhagen, one of the most invigorating spots I have visited, I won the Championship of Denmark by the odd set against him. We met about a fortnight later in the final of the Austrian Championship at Prague, in a climate in which there lurks a certain subtle opiate which deadens all disturbing influences and prevents one from bothering much about anything—even about lawn-tennis matches. Anyhow, on the hot courts among the trees below the Kinsky Garden I did not get a set against my former opponent. A few weeks later we met in the North London Championship at Stamford Hill, which was, at any rate, an improve-

ment on Prague, and here I did not lose a set. About a month later we met in the final at Homburg one very sultry morning, and Ritchie won by three sets to love. I have only met J. M. Flavelle twice in Open Singles—once at Stockholm, one of the most bracing places in Europe (and one of the nicest), in May, where I won; and once on the outskirts of The Hague, where the autumn climate is relaxing, and where, accordingly, I lost. All that was said above about Nottinghamshire, Perthshire, Berkshire, and the West is also curiously borne out by my own experience, for I won the Open Singles at both the first-named places; and in Perthshire my opponent in the "final" there had previously beaten me at Llandudno, where the climate is very "dead-and-alive." My reason for mentioning these personal details is that there is nothing like first-hand experiences of this kind for giving one definite knowledge about climate.

As regards the report about energy in Berkshire, I may say that I once spent the month of May within a mile or two of that county at Oxford, that the climate was so relaxing that I never once felt really able to play well there, and that on the river the subdued, almost despondent air of the practising crews in that muggy atmosphere afforded a striking contrast to that of the May boat crews at Cambridge, which is a particularly bracing place. It is a strange instance of the sport of chance that one of our two chief Universities should be placed in one of the most relaxing holes in England, and that the other, although far healthier, should be built on what is practically a drained marsh. A place like Windermere or Keswick would have great advantages over both of them. The connection between the climate of Oxford and the schools of thought she has lately produced is too obvious to be doubted.

The effect of the climate of Ireland in producing that peculiar "truculence" for which the Irish are so famous, rarely receives its due weight in this country; for the difference between, for example, the climate of the county of Mayo and that of Middlesex is such that it must be experienced to be believed. The weather all over Ireland (including Dublin) may be

said to be at once relaxing and boisterous, and this is no doubt reflected in the alternate indolence and ferocity which the national character sometimes displays. It certainly seems to me that those who are put in authority over them ought to undergo beforehand a residence of at least three winter months in a "congested district" to teach them the difference between Kensington and Connemara, instead of spending an odd fortnight or so there in the summer in a motor car.

No one need wonder at the differences between the looks and manners of the upper, middle, and lower classes if one considers the vast effects on mind and body, on the one hand, of judicious changes of environment which money can obtain, and, on the other, of complete monotony of scene and climate in the streets of a dull and ugly sameness in a relaxing climate, such as is unfortunately the lot of many hundreds of thousands of people around London. If in the case of the first-named favoured few—who can tide over the wear-and-tear of London life by means of autumn sojourns on breezy moors or of sunny March days among the Maritime Alps, or of promiscuous "week-ends" away from the winter fogs, or of a hundred other things, from steam yachts or a villa at Ischl downwards—what wonder is it if sometimes something of the beauty and the majesty of those scenes of Nature amid which they have so often dwelt communicates itself to them?

Class differences have their natural history and their logical causes, like everything else, and they are more connected with surroundings than is generally supposed.

It is often said that one-half of the world does not know how the other half lives. It may, perhaps, interest some of my readers if I insert here my "itinerary" for the year 1903. It is as follows:—January, Connemara (Ireland); February, Orkney Islands; March, Manchester; April, Sutherlandshire; May, Oxford; June, London; July, Sheffield, St. Petersburg, Helsingfors, and Newcastle; August, Moffat (Scotland), Buxton, &c.; September, Innsbruck, Landeck, Vienna, and Lucerne; October, Chamounix, Munich, Budapest, Ragusa (Dalmatia);

November, Bocca di Cattaro, Cetinje (Montenegro), Scutari in Albania; December, Medua, Dyrrachium, Corfu.

As the above singular medley of places includes some which are not widely known here, a few climatic and other details about one or two of them may be of interest to some of my readers. Of Connemara I should say—"scenery, grand; climate, muggy (except during gales and blizzards); rain, mostly all day in the winter." The deluge is so heavy that there are deep bogs over a thousand feet up the mountains which the rain has turned a brown colour. It is much better in the summer, and highly interesting. The Orkney Islands, according to my experience, have the healthiest climate in the British Isles. It is *distinctly dry* on the average; continuous rain and severe cold, even in the winter, are exceptional, and there is a wonderful amount of sunshine. The air and the sun of these islands would effect wonderful consumption cures between May and September. The people are kindly, prosperous, and resolute, and they travel everywhere as sailors, &c., often returning eventually. The scenery of Hoy would compare with anything in Great Britain, but that of the main island is rather tame. In Hoy one could throw a biscuit into the sea from a height of eleven hundred feet. The climate of Sutherlandshire is much less bracing. One can travel forty miles without finding a railway station, and the condition of the natives on the west, owing to the deer-forest system, is disgraceful. St. Petersburg has a grand climate in July, neither relaxing nor too cold. The dearth of natural scenery in those flat swamps has made an island in the Neva a fashionable promenade in the autumn for the purpose of *looking at the sunsets*. Doubtless there are now a few new features in the landscape to look at. *Helsingfors*, the capital of Finland, is a clean-looking and prosperous commercial town. It is more like some very smart Swiss town than anything else. The success of German commerce in this and in many other parts of Europe is doubtless owing to the fact that they regard their consulates not as snug

berths for people who have "made a mess of it," or failed in Germany, but as posts requiring picked men of business. Moffat, in Dumfriesshire, is believed in Scotland to be a good place for diseases of the chest, owing to the mildness of the climate; but although, no doubt, an improvement on Edinburgh, I should be inclined to doubt if several days a week of driving "Scotch mist" are very beneficial for that complaint. Over on the other side, in "Easter Ross," the climate is infinitely drier and pleasanter. Innsbruck in September is a sort of glorious "Inferno," lying, as it does, at the bottom of a basin with colossal sides. Budapest has a wonderfully clear, dry, and sunny climate. At the very end of October there was a perfect climate for tennis there (dry and bracing, yet not too cold); but the clubs were all closed and deserted, merely because it was regarded as "the close season" for the game.

I passed through Bosnia on the way to Ragusa. The climate there in the late autumn and winter is simply superb. One finds the bleak winds and flat plains of Hungary exchanged for balmy summer air and pine-clad hills, like a half-tropical Scotland. The Austrians have done wonders in the way of civilising this beautiful and little-explored country by making grand roads and building some good hotels. Its chief recommendation to English tourists lies in the fact that the scenery, although astonishingly varied—especially as one approaches the coast—is never dull or tame, but always mountainous; while the sport with rod and gun is in many cases simply untouched, which means a good deal. In Vienna one can get a large yellow volume (issued yearly) called the "Bosnische Buch," which gives any amount of information. The inhabitants and their implements are still in such a primitive state that they would almost do for the originals of the "prehistoric man" pictures with which Mr. Reed used to divert the readers of *Punch*.

A good deal has been written lately in praise of Ragusa, which is sometimes called "the Athens of the Adriatic," but in my opinion it should be received with caution. It is true that the Bay of Gravosa is beautiful, and that the old town of Ragusa is quaint and

picturesque, but the whole place seems to be lodged, as it were, on a mere ledge of rock at the bottom of the most fearfully arid steeps and wastes of volcanic stone which can possibly be imagined. No Englishman knows what barrenness means until he has seen some such place as this, where huge mountains and deserts of sharp white stone stretch everywhere, in many cases without a single blade of grass or herb to relieve the effect. There are, however, some splendid sites among the woods near the sea, and with a supply of motor boats for the glassy, placid bays the place might be made attractive enough for the English in want of health and holidays. The great thing is that there is never any edge on the breezes, as there is so often on the Riviera in the winter. The temperature of the sea even in November is delightful for bathing. The people form a curious medley of Turks (or those who were lately Turks), monks, and Austrians. The Turks, in their dresses of faded grandeur, and the monks (who swarm here), with their shaven crowns and sandalled feet, are very novel features in the landscape, while dapper little Austrian officers, with white gloves, spend the morning in drilling sturdy Dalmatian recruits on the huge parade-ground. On the top of the mountain is the fort which Napoleon thoughtfully devised in order to throw shells if necessary down into the main streets among the rebellious Ragusans.

The Bocca di Cattaro, the extreme limit of Napoleon's Empire, affords probably one of the most wonderful sights of absolutely sterile grandeur that could be found. As the road winds above it for several thousand feet one enters the wild country of the Montenegrins, and the pistols which appear so often in the girdles of the natives remind the traveller that he is now in that "Near East" where the newspapers say there is always "trouble."

The chief feature about the small village of Cetinje (rather Irish in appearance), which is called the capital, is the residence of the agent of Russia, which no doubt dreamed of a seaport for herself on the Adriatic until the scuttling of her various fleets dissipated the alluring vision. The great lake called the

Sea of Scutari, which stretches to the borders of Montenegro, a few miles from Cetinje, is well worth a visit by the tourist or the sportsman. Although the place is only a few miles from Austrian territory, one takes a sudden plunge into barbarism after leaving Montenegro. The town of Scutari, on the other end of the lake, is fairly healthy in the winter, but fever is very common in the summer in the squalid Turkish slums which form the town, owing to some pestiferous marshes near by. One of the Turkish governors recently proposed to drain them, but the inhabitants rose *en masse*, swore that the marshes were the works of God and should not be touched, and caused the hasty recall of the rash reformer in order to avert a revolution.

The system of diet which prevailed during my stay there in the month of Ramazan would hardly be popular in lawn-tennis circles. From early dawn until sunset the faithful, in this month, almost to a man, take neither food nor drink. To prepare themselves for this unnatural abstinence they pay a band of ruffians to wander round the town at half-past two every morning with drums and horrible bagpipe instruments, to wake up the faithful for an early breakfast, which lasts throughout the night until the fast begins.

Everyone who comes to market at Scutari brings his rifle with him, and acts as his own policeman. The fasting appears to inflame the feelings of the true believer, and he finds relief by firing numerous volleys (accompanied by religious chants) in the neighbourhood of the town. Some people may think the Irish peasant poorly clad, but he is a well-tailored man compared to many an Albanian. There is a splendid Venetian fort at Scutari, and on the east side of the lake the mountains are of Alpine grandeur. Medua consists merely of a few huts on the sea-coast, but it is only two or three miles from the old Turkish village of Alessio, where there is a greater diversity of scenery—river, mountains, ruins, forests, marshes, glaciers, ocean—than I have yet seen elsewhere. Durazzo, the Dyrrachium of old, the scene of Cicero's exile, guarded by its belt of morass, has remained but little molested since

the day when Pompey gained his only delusive victory over Julius Cæsar. One still finds abundance of the enormous bulbs of the red lily which were the "certain roots" mentioned by Plutarch and used by Cæsar's soldiers, in default of anything else, for making bread, from the effects of which they all suffered until a carouse of wine in a Thessalian village effected their cure. The town is completely surrounded by a wonderful Venetian wall, and its outskirts teem with the remains of Roman tombs and villas, at present visited by few beside some energetic German savants. I myself saw the capital of a Corinthian column in use as a seat. The indescribable squalor and misery combined with the novelty and picturesque appearance of this and other Albanian towns, which are only a few hours from London, might well attract more attention than they receive at present. Several miles from the town, on the edge of some huge marshes and in utter solitude, I came upon the gateway and the ramparts, still standing, of the ancient seaport built by the Romans. The place is abandoned to the widgeon and the wild geese, and the sight of a huge block of masonry which had just fallen on the shore, undermined at length, after twenty centuries, by the waves, and of the ruins stretching out along the shore, with the great, bare, purple-brown heights of this land of mountains in the background, produced an effect I shall not soon forget.

I do not think I fully grasped the barbarous nature of the land until a native at a country village kindly offered to extract a thorn from my foot with a long dagger.

I have said something about Corfu—the last place on my list—elsewhere in this volume in the chapter on Parmlý Paret's book, so I do not propose to say much here, nor is it a subject on which one can dwell without regret. Everywhere one sees the splendid roads built during the English protectorate; everywhere one sees traces of the neglect of the inhabitants (and of nearly everything else) by their present rulers. Even the military citadel itself is in many places about as orderly and clean as an ostler's yard. Instead of possessing a depôt in one of the most charming and

salubrious spots in Europe, and in one of the strongest positions, we now have the privilege of anchoring in the roadstead by courtesy of a foreign Government. There is, however, one great consolation. In depriving us of this invaluable strategic stronghold and recreation ground for our Mediterranean sailors the late Mr. Gladstone was enabled to display to the full his classical scholarship in a harangue in Attic Greek to the islanders (who were anxious to remain under British rule) in the square at the back of the citadel. As someone remarks in "Othello," "We lose not Corfu so long as we can smile."

SECTION 4.

SOME TENNIS TOPICS.

CHAPTER XIV.

Mr. VAILE AGAIN.

MR. P. A. VAILE has lately delivered himself of an article in the March number of *C. B. Fry's Magazine*, called "Where John Bull Fails." The writer's purpose, which is succinctly avowed, is to prove that the Englishman in general thinks he is "something very much better than he really is," and that in most cases he "isn't anything very much at all." I need hardly say that the printing of so patriotic an article reflects almost as much credit on Mr. Fry as on Mr. Vaile. It is, perhaps, needless to say that he has obtained the handle for his assertions that "the Colonial is physically and mentally superior to the Englishman," and that the latter lacks "virility," from the victories of the New Zealand football team. None of the other branches of sport, such as cricket, rowing, athletics, and lawn tennis, lend much colour to his assertions, although he affects to think that lawn tennis does.

The New Zealand Rugby team is his *pièce de résistance*. Any impartial person who looks at the numerous photographs of that team will probably be ready to concede that in point of sheer physique they are superior by a good deal to most of the Varsity Rugby teams of late years. No doubt we could get together a score of such men in England, but in order to do so we should have to seek them in the ship-yard, the colliery, the barrack-room, and the fishing smack. In

other words, we should have to seek them in the ranks of those whose main occupation from childhood has been manual labour, and who have not merely passed their playtime in athletics, as is the case with the 'Varsity teams. For in New Zealand Mr. Vaile has himself observed that the gentleman often has to be his own servant and to "turn to and trim the forest." There are certain forms of athletics in which physique is nearly everything, and Rugby football is one of them. Mr. Vaile may talk as he likes about the superior "mentality" of the New Zealand team, but he will have hard work to convince rational observers that the victories of his fellow-countrymen were not chiefly due to sheer brawn. The precise amount of intellectuality required for a Rugby "scrum" would be somewhat difficult to determine. It is just the same story in sculling. Although in pursuits which demand finesse and skill as much as brawn—such as cricket, for example—the amateur who plays much often surpasses the professional, in sculling all the finest amateurs of modern times have been outclassed by their professional trainers *without exception*, simply because the former could not make up the immense amount of leeway which existed between them in the way of manual labour in previous years. The difference naturally arises when one man depends on his arms and hands for his daily food and the other merely uses them for recreation in the intervals of brain-work. It also arises partly from the entire absence of manual training in an ordinary classical education. As for the alleged "physical and mental superiority" of the Colonial for which Mr. Vaile contends, the facts of the matter were fairly well established during the South African War. No doubt the English often suffered heavily for their misplaced generosity to the Boers, but there are few people in this country who would not prefer that they should have erred in this way rather than in that which caused the Boers (as one of Rington's scouts assured me) always to "shoot an Australian directly after they caught him." Brutality is not bravery, although it is often confounded with it. I do not mean to suggest that the Colonials, as a whole, were

barbarous or ferocious in their methods of warfare, but that some of them obtained this reputation for the rest among their enemies is undeniable.

I now come to Mr. Vaile's remarks on Oxford and Cambridge. Speaking of the Oxford-New Zealand match, he says that he saw on the field "thousands of gentle-looking lads with pink faces and blue eyes, who, no doubt, had been delicately nurtured," that he "knew that man to man the lads across the sea are their masters," and that he "knew in his heart that England is now 'up against it' [whatever that may mean] and she must realise it before it is too late." The above description of the Oxonians may raise a smile among the initiated. The late C. S. Parnell, who passed several years at an English University, and who knew what it was like to be "on the wrong side" of the English, was much nearer the mark than Mr. Vaile when he bade his followers "not to throw him to the English wolves," for their enemies often find them to be such.

Mr. Vaile finds Oxford too decorous and Cambridge too rowdy. After the Cambridge-New Zealand match, which was played somewhere about "the fifth of November," the Cantabs had a bonfire on Midsummer Common, which Mr. Vaile calls "setting the town on fire almost literally." "Of what I heard and saw that night I do not care to write too much," he says, as if he were narrating a massacre of Armenians.

He then proceeds to rant about "the destruction of private property" (*i.e.*, the burning of a few boards, invariably paid for afterwards at six times their cost), and he inserts an illustration of a Cantab brutally felling a policeman with a brickbat, which constitutes one of the most misleading libels on the Cambridge undergraduate that could be found. Its insertion does infinite credit to the good taste of Mr. Fry, a member of the sister University. I may remark that this picture is a manifest plagiarism from certain illustrations by "C. P. H." which adorned a literary effort of mine called "Trumpington's Wave" some ten years ago. Many of the Cambridge townspeople would be the first to testify

to the good humour which prevails between police and undergraduates, and to point out that if people go and live among two thousand beef-fed young men they must put up with petty inconveniences. Anyone who has read Mr. Vaile's own confessions about drink will be able to judge of the sincerity of this paltry attack on the Cantabs. To allege, as Mr. Vaile does, that the Universities are "the best places in the world to unfit a man for the serious battles of life" is to ignore the existence, for example, at Cambridge, of some of the finest laboratories and one of the best medical schools in Great Britain, the immense physical benefits obtained from three years' rowing, and, lastly, the peculiar social benefits which are unobtainable elsewhere.

Mr. Vaile finds fault with the undergraduate because he "even thinks in good form." This idea that good form is merely a cloak to be assumed on occasion is shared by Voltaire, who thought that fortitude was the result of vanity aroused by the presence of bystanders.

Mr. Vaile says in *Fry's Magazine* that in England we are behindhand in religion among other things, but as in the same breath he suggests various improvements to assist bookmakers at races, I should doubt if he be the right man to make this charge.

With regard to English lawn tennis, Mr. Vaile is "disappointed with the mentality of it," but I scarcely think that the author of "Great Lawn Tennis Players" is the right man to cast a stone at it on that score. He bases most of his arguments for the alleged decay of English lawn tennis on the performances of Mr. N. E. Brookes, who, he avers, is superior to H. L. Doherty. Under these circumstances it may be useful to recall the fact that during his stay here Mr. Brookes played in seven Open Singles, with the following results:—At Beckenham he won, at Queen's he was beaten by Ward, at Wimbledon by Doherty, at Edgbaston by Smith, at Newcastle by Dunlop, and at Dinard by Hillyard. At Eastbourne he won, and few grudged him his victory after so much ill-success. But in face of these facts Mr. Vaile's denunciation of English lawn tennis need not trouble us

much. As for the Americans and their "immense variety of beautiful strokes" compared to our own, it is unfortunate for Mr. Vaile's arguments that the two champions of the United States were each beaten by three sets to love in the first and second rounds of the Championships at Wimbledon last year. At the end of his article Mr. Vaile says that the way for a man to get on in England is to "hold his candle far above his head on a lofty pole, and run swiftly up the street, shouting loudly the while that his modest rush-light is a fifteen thousand candle-power arc lamp of the finest quality." This is exactly what Mr. Vaile appears to me to do.

In the April number of *Fry's Magazine* Mr. Vaile repeats some nonsense about the "English grip" and the "English back-hand," which have been already dealt with by me in "Lifting the Veil." He further utters a tirade against "the octopus of trade influence" (as personified in a well-known firm) in lawn tennis. His words might weigh more with some people if they did not strongly suspect that they have been inspired by some rival "octopus of trade" with a view to the transference of the Championship ball contracts from their present location.

In view of the many statements displaying the depth of Mr. Vaile's knowledge of lawn tennis which I have collected in one of the articles in "Lifting the Veil," some people may think it strange that a well-known journal like the *Field* (which, from its attitude on disputed questions, might better be styled the *Fence*) should still keep up the Vaile and Beldam lawn-tennis hoax in its columns. The reason is obvious enough. There are certain foreign or Colonial players, such as De Borinan, Parker, Brookes, Ward, and Grant, who although admittedly inferior to our best men, possess certain strokes (*i.e.*, drives and services) which our players do not make. These strokes, although not essential, are very useful "adjuncts" to the game. There is not the slightest evidence that Mr. Vaile ever has learned or ever will learn how to play these drives, but he avails himself of the fact that these undoubtedly effective strokes are not made in

England, while they are made by certain foreigners, in order to pose (with the kindly help of a leading referee) as an authority on a game which his books, apart from other evidence, show that he has never learned to play. In fact, his attitude with regard to these foreign players is exactly that of the well-known gentleman who was wont to point to the Prayer-Book and say, "Them's my sentiments."

CHAPTER XV.

THE LAWN TENNIS ASSOCIATION.

IT has long been the opinion of the writer that in order to find a parallel for the way in which the affairs of lawn tennis in England have been managed by its official Association it would be necessary to seek it in the realms of opera bouffe. It is, in fact, an incorrect expression to say that its affairs have been managed at all. They have been *engineered* for years past for the benefit of the All England Lawn Tennis Club, or of a handful of its members, or of every conceivable private interest except that of the game. The result has been an "oligarchy" both of talent and management, so that the number of first-class players in Great Britain outside of London can be counted on the fingers of one hand, and the public interest in the game—except in certain large towns—has been almost stationary for ten years. I have had better opportunities than most people of gauging the present standing of lawn tennis in England, and I attribute its inferior position chiefly to the paltry spirit which has pervaded its management. I do not say these things without giving chapter and verse. In 1903 a movement was set on foot by a considerable number of players to alter the rule whereby the holder of the championship has only to play one match to become champion again, whereas the challenger has to play at least six matches, and sometimes seven, to gain the title. The Association thereupon *themselves selected a representative list of voters to decide the question*, and proceeded to take a poll. The result was a heavy majority (42 to 24) in favour of altering the rule. It did not, however, suit Mr. A. W. Gore and a few influential friends of his to have the rule altered, and, as they evidently shared

Bismarck's contempt for the mere "volings of majorities," and were doubtless aware that the majority possessed no machinery for enforcing its views, the Association proceeded to pass a resolution that no further action in the matter should be taken. And yet some people are surprised that in *Truth* I called the Association "a rotten and effete body." I am happy to think that the action of the Association in lending itself to a proceeding of this kind is no more typical of British sport in general than the manœuvres of some solicitor of the pettifogging kind are typical of British trade. But this is not all. In 1903 some gentlemen at Hythe proposed to start an excellent tournament there, and to offer some valuable prizes for competition. The Secretary himself assured me that the Association at first refused them their proposed date in August because it clashed with a tournament on the Continent, and then definitely forbade them to spend the sum proposed in prizes for fear of attracting competitors from Chichester. This was no doubt "pour encourager les autres" who might want to start a tournament in the future. Recent correspondence in the *Field* and in *Truth* has probably apprised many people of the absurd position of the Association with regard to the championships. It will be enough to remark here that the Lawn Tennis Association at present has no voice whatever in the management of the Lawn Tennis Championships, and that at one of its recent meetings Mr. Macfie, of Liverpool, asserted that the Association had no right in the matter, but relied on the good nature of the All England Lawn Tennis Club. It is not surprising that all the A.E.L.T.C. party invariably express the warmest esteem for Mr. Macfie. Although the Association is all but insolvent, the private club mentioned above derives over £2000 a year from the Amateur Championships, and some of its members—such as Mr. Hough and Mr. C. F. Simond—have stated in the Press that they consider it "a piece of effrontery," &c., for anyone to ask how the money has been spent. They also point triumphantly to the fact that the club has never paid off its mortgages out of its huge revenue,

but I fail to see that this fact in itself proves anything in their favour. Mr. Wilberforce, a legal member of the club, has gone so far as to claim a "quasi-property" on behalf of the club in the Lawn Tennis Championship, but I doubt if he would like to put forward the claim in the Court of Appeal. Mr. Wilson Fox also, in a long and dignified epistle, has laid much stress on the fact that lawn tennis is only a game and not a serious pursuit; but when he comes to deal with the claim of his club to "farm" the championships for £2000 a year he is serious enough for a whole board of bank directors. I could mention other things, such as the payment by the Association of Mr. W. H. Collins's expenses to America to select two out of three men to play for the Davis Cup there in 1903, and the loss of the cup for Great Britain through his omission of Mr. H. L. Doherty, the then champion of England, from the Singles team. The official reason given for this proceeding was that "it was desired to keep the champion fresh for the Doubles," which were played *at a later date*. The people who have often seen him play eleven or twelve sets in an afternoon doubtless appreciated this explanation with regard to one match per day for three days. A "double" match is mostly far less exhausting than a "single." But I hope that enough "chapter and verse" has been provided to enable the discerning reader to understand why lawn tennis is not "thought much of" in England, although many people know it to be a first-class game.

The recent circular sent out to the Headmasters of Public Schools by the Association, proposing a Public Schools lawn-tennis competition, shows that it contains many excellent sportsmen, which makes its management by a small clique all the more regrettable. In one respect the All-England Committee has been unfairly blamed in the Press, viz., for dismissing one of its paid officials because that functionary refused to communicate complaints at the Championships to the Committee before giving them to the Press. One can scarcely imagine any body of employers who would have acted differently under such circumstances.

CHAPTER XVI.

MISHAPS.

IN a book of lawn-tennis sketches lately published, called "Lifting the Veil," I referred (in the last article) to certain accidents, beyond the power of a player to foresee, which sometimes decide a match, and I cited them as examples of what the French call *force majeure*. All tournament players will, I believe, agree with me when I say that these cases of *force majeure* are of considerable frequency in lawn tennis. Most frequently they take the form of umpires' decisions and of variations in one's partner's form. For one's own form one is usually more or less responsible. The great advantage of tournament play lies in the fact that it tends to teach a man to keep his temper when there is every reason for losing it, because the chief secret of success at lawn tennis is equanimity. I have known a case where my partner in an Open Double played like a hero in a semi-final which lasted all the morning, and then, although the Championship Round was apparently at our mercy, was the shadow of his former self in the afternoon owing to an unwary consumption of what Mahometans call "the forbidden juice." One of the chief reasons why the Dohertys have carried all before them for so many years is to be found in the fact that of all men they have been the most suave and unruffled in face of all sorts of variations of their partner's form in "Doubles" and "Mixed," and despite other untoward circumstances. I remember an unlucky mishap (at least from my point of view) which I suffered when playing the elder of the two of them in the Open Singles at Brighton the year before he first won the Championship. I won the second set and stood at 3-0 in the deciding one, when my opponent was attacked by nasal hæmorrhage, and after the adjournment thereby occasioned he had recovered his form and my spasmodic efficiency had evaporated. Again,

when grass courts are dry the base-lines often become nearly six inches broad towards the end of a week's tournament, and this often gives rise to most poisonous pieces of luck in the war of "decisions." The mention of umpires' decisions recalls a mischance which befell me at Newcastle in 1904, which I narrate as a warning to other players. Earlier in the season, in the "final" at Sheffield, I had personally experienced the fact that if any player relies often on serving as near as possible to the side-line next the umpire's chair it is most advisable to get someone to "take" the line, and not to leave it to the umpire. In the semi-final of the Open Doubles at Newcastle, Boucher and I were several times within two strokes of the match against Smith and Malony. Various people can corroborate the statement that twice in that game I won the ace (once when we only needed two points more) by serving close to the side-line of the right court; yet each time, because we had omitted the precaution mentioned above, the stroke was given against us, and we ultimately lost the match. Next to umpires' decisions "mishaps" arise most frequently from the fact that sometimes one cannot "find one's form" immediately after starting a match, whereas perhaps one's opponent does. It then becomes a question whether a man can pull himself together and "play himself in" before his opponent has run away with too long a lead. In the final at Stockholm I lost the first ten games running before the tide turned. Some players are so peculiarly constituted that in cases of this sort they are often slack and ineffective until defeat is staring them in the face, and then they often seem to rally themselves and pull the match out of the fire. I admit that this is rare, but all players who have played much will remember cases of this sort in their own and others' experience. The best description I ever read of a man who could play a losing game concerned Masséna, the famous French General. "In the midst of the dying and the dead, of balls sweeping away his friends around him, *Masséna was himself*, gave his orders, and made those dispositions *which he ought to have made long before*. This was '*la vera nobiltà di sangue*.'"

Again, it sometimes happens that one suffers misfortune owing to the umpire's lack of knowledge of some rule of the game, or to his unwillingness to enforce it when he does know it. For example, it is only rarely that any umpire will enforce the penalty when a return hits a player on his or her garments before it has bounced, if such players happen to be standing outside the court, or when a service strikes a player standing far back before it touches the ground. There is no clearer case for enforcing the rules of lawn tennis than the above, yet in about five cases out of ten an umpire will take no notice of it. I remember once pointing out to an umpire that the stroke is thus absolutely lost by the party struck, as if he had returned the ball into the net, but he merely replied, "Oh, rats!" Again, one constantly suffers mishaps which are liable to turn the scale in a close match owing to the prevailing ignorance of linesmen as to what constitutes a "foot-fault." They are rarely to blame personally, as very few have ever been clearly instructed in the matter. It often happens that a crack player unconsciously or otherwise serves "foot-faults" throughout the whole of a match, and obtains a substantial advantage thereby in the way of getting much closer to the net in running up on his service than he otherwise would if there were an umpire on the line who knew his duty, *and executed it*. I well remember a line umpire coming up to me after a hard match at Homburg in 1904, in which my opponent had "run in" after his service all the time with great success. The linesman showed me what was in fact a foot-fault, and then added, "Your opponent did that every time in serving against you, and I had half a mind to 'foot-fault' him, but I did not do so, as I was not sure about the rule!" I suggest that all scoring-books ought to contain clear and unmistakable definitions of *all* the foot-faults, and instructions to the umpires to show them to persons who act as base-linesmen before matches begin. Every player knows what a difference a really strict base-line umpire makes in a match.

CHAPTER XVII.

NET-CORD STROKES.

A "NET-CORD" stroke at lawn tennis is one whereby the flight of the ball is deflected from its ordinary course by striking the wire at the top of the net but which nevertheless passes over the net into the other court. It is often absolutely unplayable owing to this accident. Net-cord strokes have been an ever-green topic for discussion in lawn-tennis circles, and will doubtless continue to be so until some solution of the difficulty is arrived at.

On September 10th, 1902, I communicated the following letter to *Lawn Tennis* :—

"It is scarcely possible to regard these strokes as anything but outrageous flukes. They are not good shots, because if anyone were to be silly enough to play for them I doubt if he would bring off more than one in twenty. No player deliberately aims to hit the top of the net, because it is far too risky.

"There is what is called 'a growing consensus of opinion' that these flukes ought to be abolished, and perhaps my views as to the best remedy may interest some people. They are briefly as follows :—I think that the service-line should be prolonged at each end, so as to include the double court for double play, and that every ball in a rally which falls within the service-line after touching the net should be a 'let.' The two other schemes at present advocated are: (1) To treat every net-cord stroke as a 'let' wherever it may pitch; (2) to have new lines on the court at a short distance from the net. I do not think that the third scheme recently proposed (viz., to count every net-cord stroke against the striker) need be discussed. Any proposal which would put the striker who does manage to return the ball in the same position as the striker who does not cannot be seriously considered.

"As for the other plans, in the first case the game

would be inconveniently and needlessly prolonged, and the umpire's task would be twice as difficult and tedious as at present. In the second case, it is clearly undesirable to introduce fresh lines on the court when the existing ones can be made to do duty. The advantages which I claim for the plan set out above are that it will abolish these outrageous flukes from the game without unduly prolonging it, and that generally, if a ball pitches beyond the service-line after touching the net, the player will have a chance of reaching it. There is, of course, the drawback of net-cord strokes which pass a player at the net and fall within the service-line, but no plan is ever wholly free from objections."

A good comment on the existing rule about net-cord strokes is afforded by the following fact:—

The destination of the Championship of 1902 was altered by a net-cord stroke. The eventual winner was within one stroke of defeat by three sets to love at the hands of G. W. Hillyard when he made a lucky stroke which struck the top of the net and dropped absolutely "dead" and unplayable. No doubt he deserved credit for "giving the ball a chance" by hitting hard, but the stroke was an absolute fluke, and an alteration of the rule might have changed the result of the Championship of that year. Few people have any idea how many important matches have been spoiled by the occurrence of net-cord strokes at critical moments in the game. It is usually said that the element of luck helps to increase the excitement of the game, but no game of skill is improved by a rule which often causes the defeat of a player by circumstances over which he has no control. One might as well say that pieces of biscuit on a billiard-table increased the fun of the game, or that hoof-marks in the direct line of a golf course made it more "sporting." The "stymie" at golf is another instance of a rule whereby a player is penalised (often after absolutely correct play) by no fault of his own, and its retention is a standing testimony of the imbecility of the golfing authorities in this particular matter. A majority of the English players, I believe, favour its abolition.

CHAPTER XVIII.

'VARSITY TENNIS.

TENNIS is almost always played at the Universities in the afternoons only, so that it rarely interferes with the lectures, &c. The question of the state of lawn tennis at the Universities is one of interest to anybody concerned about the future of the game. For if it be in a flourishing state at any of them, there is an exceptional chance for young players to "come on" during the three or four years of their course, with their constant opportunities for regular practice. The truth of this is frequently seen in other sports, such as sculling, running, cricket, football, and rowing, where undergraduates frequently secure Championship or International honours. But, unfortunately, almost solely in the case of the game of lawn tennis, there are at present serious obstacles to improvement at the Universities, which are really by far the most promising recruiting-grounds for new players in the country. In the first place, when the undergraduates "go up" as Freshmen hardly one in a hundred has had any experience of good play at school. Secondly, when they are "up" it is often extremely difficult, or even impossible, for them to obtain any decent coaching or practice in the Single game. There are no professionals at either Oxford or Cambridge. There was one professional in Dublin of exceptional ability, both as a player and a coach, but in order to obtain a decent stipend for his services he had to leave Great Britain and betake himself to Berlin! Hence the undergraduate is forced to rely chiefly on the college match for practice, where the monotony of playing three leisurely rounds of more or less "crock" Doubles is beguiled at frequent intervals by libations of tea and shandygaff under the shady trees. Is it surprising that

under such circumstances lawn tennis should be generally regarded at the Universities as greatly inferior to such a sport as rowing, which makes the heaviest calls on muscle and stamina? Those who have known the difference between "doing a Clayhithe" on the Cam and playing in a college match will know what I mean. There is usually a handful of good Single players, but there are all sorts of obstacles to regular practice with them unless one happens to be in their "set," which would not exist in the case of a resident professional. It happens in some years that the best players will "fight shy" of Singles as much as possible even among themselves. Although the University Club at Oxford only contains four grass courts, there are often not enough players even on fine days to fill them. The fact that this state of affairs should obtain in a place which contains over a thousand undergraduates goes strongly to prove my main point, which is that the qualities latent in the Single game as an athletic sport are very imperfectly known at present. The "pat-ball" prejudice dies very hard. I, of course, freely admit the undoubted fact that the difference between the physical benefit obtainable from a three years' rowing career at the University and that from a similar course at lawn tennis is greatly in favour of the former. But there is no reason why this should be so if the latter game were properly cultivated. Moreover, there is another side of the picture which merits attention. As soon as the three years' course is over, about 80 per cent. of the oarsmen, cricketers, and footballers are promptly absorbed into some part of the social mill, and henceforth for them there is no more healthy exercise except at scarce, spasmodic intervals. From that time their existence is chiefly a frock-coated one. Most of these people will tell you with enthusiasm that the days when they were fit and doing courses for "Lents" and "Torpid" were those of the greatest happiness and bodily health in their lives. Why, then, do they abandon it all during the rest of the years of their prime? The game of lawn tennis affords a chance to them all to keep fit and well for at least another ten years without necessarily

sacrificing their other interests. The interest of the game and the competition provide a natural incitement not to abandon all care of physique after the age of twenty-three. Moreover, although the fact is very well concealed, it remains true that the results of the modern struggle of life depend ultimately as much on physique as on intellect. It is often a sombre spectacle when one encounters some famous 'Varsity athlete of even seven years ago.

CHAPTER XIX.

LEVEL COURTS.

IN a country such as our own, where immense sums of money are constantly forthcoming for the making and improvement of golf greens, and where cricket pitches on all the chief grounds are uniformly made as level as billiard tables, it seems strange that a really level tennis court should be one of the greatest rarities. Yet the fact can be confirmed by the experience of all players who visit many tournaments. The best that can be said for nearly every court (with the rare exceptions mentioned below) is contained in the far-famed remark of the curate about a boiled egg supplied by his Bishop—viz., that “parts of it are excellent.” There are many honorary secretaries of clubs in the country to whom lawn-tennis players are greatly indebted for gratuitously performing a great deal of hard work (solely in the interests of the game) which is inseparable from the “running” of a successful tournament. In common with other players, I have the greatest appreciation of their labours; but what I desire to point out is that the present state of the courts affords an instance of spoiling the ship for the sake of sixpennyworth of paint, or rather, to speak correctly, for the sake of £7, which is about the average cost of levelling a court.

The present state of affairs at many of the country tournaments may briefly be described as follows:—The local cricket ground is hired for the occasion. The pitch, which is often the only level spot on the place, is roped off, and excluded from play, and the courts are marked out on the “virgin soil” of the rest of the ground. There is generally (to borrow the usual phrase about a torpedoed vessel) a heavy “list to starboard” about the courts, so that one side or one end is much

higher than the other. This "list" usually increases the nearer one gets to the "leg boundary," so that sometimes when one's opponent is serving up the hill one does not see much more than the top of his head appearing above the net. Some people will, of course, think that this description is exaggerated in order that it may be amusing. But it is not at all amusing to play "up the hill" on this sort of court, when one wants perhaps a single game to save the set or the match. Some grounds are, of course, much worse than others. With regard to the "drop" on the centre courts at some places, such as Folkestone and Brighton, it is as well to maintain a "discreet silence." But even when the courts are not marked out on the side of a declivity, the game as a game of skill is often partly ruined by uneven areas of various sizes about the courts. Many players do not know what the game of lawn tennis is like when it is played on a properly levelled court. Yet there is almost as much difference between playing on a good court and a bad one as there is between rowing in a "best boat" and a tub, or cycling on a "Swift" and a "bone-shaker." If the game of lawn tennis be worth playing at all, it is worth playing under proper conditions. The present average state of the courts is not chiefly produced by want of money (for the cost of levelling is not very expensive) nor by any difficulty in procuring skilled labour to remedy it. It is well known that a practical job of this kind can be done much easier, cheaper, and better in England than in any country in Europe. It is not money nor opportunity which is lacking. The reason is to be found in the prevailing idea that anything is good enough for lawn tennis and lawn-tennis players. In some parts of Scotland the construction of the most perfectly levelled bowling-greens has enabled the people responsible in the matter to grasp the fact that lawn tennis is not one of those games which are meant to be played on ground in the state in which Nature left it. Consequently, both at Moffat and at the Atholl at Pitlochry the courts are a credit to the people concerned. In England I have seen level courts at Wimbledon, at the Queen's Club,

at the Gipsy Club, at Chiswick, at Nottingham, at Chichester, and at Eastbourne (on certain parts of the ground). There are various suburban clubs where the courts are also good, but I cannot recall any other tournament grounds where the courts were thoroughly good, although often parts of them were excellent. This state of things is the more absurd because, as I have mentioned above, the English as a whole are nothing if not practical in matters of this kind. It simply means that the game is deemed too insignificant to be worth troubling about.

If some provincial committee were to make a level court and advertise the fact, I believe that players of all kinds could be counted on to flock to the place from every part of the country in order to view this extraordinary and unique curiosity.

The reason why murmurs on this subject are so seldom heard in a literary form, though vocally they are unceasing, is to be found in the fact that players are so often indebted to the local management for various kindnesses that they think it would be ungrateful to express their criticisms of the ground.

CHAPTER XX.

LAWN TENNIS IN ENGLAND.

IT must be evident at the present time to the most casual reader of the results of the English lawn-tennis tournaments of any consequence that Success (with a capital S) has taken up her abode in the ranks of a very small squad of first-class players. First of all, there is the London brigade, which consists, at the outside, of about a dozen "class" players. But after we have left this charmed circle, and have turned our gaze to the provinces of the most athletic country in the world, it is a case of "what a falling off was there!" Three players in Gloucestershire, one in Leicestershire, and two in Bedfordshire—such is, practically, the sum-total of "class" players in the British Islands outside of London.* Neither Ireland nor Scotland possesses a single player of the first rank. The result of this state of things is that if anyone "looks in" at haphazard to see the finals of any provincial tournament of any size, the odds are heavy that he will have an opportunity of studying the base-line driving of Messrs. Smith, Boucher, Ritchie, or E. R. Allen.† Knowledge of the game and skill in its execution are at so low an ebb in the provinces that the result of matches between provincial players and those I have enumerated above is, in about forty-nine cases out of fifty, a foregone conclusion. Moreover, there is no question that, except at a few places like Eastbourne, Newcastle, and Liverpool, the public interest in the game is at a very low level indeed (outside of the Championships), and is almost wholly confined to a small section of the middle class. We are, as

* I omitted to mention Mr. Ball Greene and Mr. E. V. Jones.

† Written in 1904.

I have said, a most sporting nation, and therefore, as some of these tournaments have been before the public for no fewer than twenty-three years, it will doubtless be contended, with some show of reason, that these facts go to prove that lawn tennis is not a first-class game. If it were, people will say, there would be many more first-class players than there are to-day, and a much larger section of the public would take an interest in tournaments. To this assertion I would reply, firstly, that it is exceedingly hard to become a first-class player, and if one is to have any chance with the players mentioned above, it will involve a great many severe matches, however much of a "born champion" a man may be. It is much easier to go at one's own pace round a golf links than it is to encounter a "class" player in good condition, who, unless the most strenuous efforts are made, will probably "wipe the floor" with his opponent with all that cultured ease and insouciance which a hundred repetitions of the same operation have bestowed upon him. The path which leads to admission into the phalanx of the cracks is not an easy one, for it must be over the prostrate forms of several players who are "hard nuts to crack." As regards the lack of public interest in the game in the provinces, I fancy that the monotonous style of base-line play adopted by some of the leading players is partly responsible for it. There are two entirely distinct elements in first-class play—viz., driving from the back of the court, and volleying at the net. In the first case, next to accuracy, force is everything; in the second case, force is often nothing. It is open to a player to develop the first of these elements alone in his play to an extent which will enable him to defeat anyone but a really first-class player. But the play of such a one is extremely monotonous to watch, and, moreover, it is always liable to be defeated by that of a player who, while he knows how to drive from the shoulder, knows also that half of the art of the game consists in various kinds of volleying. The difference in attractiveness between a meeting of two good volleyers and two base-line players alone is like that

between a Ladies' Double and a match, for example, between the Allens and the Dohertys. If lawn tennis really is a first-class game, which I believe to be the case, all sections of the public are bound to find it out sooner or later.

There are many excellent reasons why the game should be played by the officers of the British Army. At present, it is true, they know there is such a game. But its name merely produces visions of mossy lawns, champagne cup, and fair partners in fascinating frocks wielding square-shaped rackets of prehistoric pattern. The idea that a meeting between two good players means a regular "mill" for a couple of hours, involving severer exertions than anything outside the boxing-ring or a Rugby match, is something still quite strange to them. Yet, in view of their decidedly "generous" diet (to put it mildly), and their easy labours in time of peace, it may be confidently stated that there is no finer physical, mental, or moral tonic than a match at lawn tennis between two players who each know the game thoroughly and each want to win. The importation of one or two really first-class professional players at a place like Aldershot would do wonders in creating a healthy interest throughout the British Army in a game which, when properly played, makes greater calls on stamina and pluck than anything except boxing.

CHAPTER XXI.

EASTBOURNE AND OTHER TOPICS.

A CERTAIN lady contributor to one of the ladies' papers on the subject of lawn tennis recently communicated the news to her readers that after the Championships were over no one attached any importance to any of the numerous provincial Championships which were played off during the rest of the season. It is noteworthy that she also expressed her disbelief in the report that the Americans did not show their best twist service before the Championships, because this, in her opinion, would have been unsportsmanlike. On this matter I may perhaps be allowed to point out that the suggestion that the Americans ought, as sportsmen, to have disclosed their tactics beforehand to their opponents, who wanted to "knock them out" at the very first opportunity, appears to me to savour thoroughly of South African War methods, but not of those of lawn-tennis players. As to the lady's remarks about provincial tournaments, I would answer them in but one word—viz., "Eastbourne." It is, of course, true that such tournaments as Edgbaston, Buxton, Newcastle, and Brighton can often boast of nearly, or quite, as good an entry as Wimbledon, and that certainly at Newcastle there is almost as good an attendance and more local interest in the game than in the case of Championships. And this is even truer of the Eastbourne tournament.

For many years past at this Mecca of lawn tennis, to which the bulk of the leading players yearly make a pilgrimage for the wind-up of the season, the entries have been always more numerous and usually quite as good as at any tournament in England. I believe that this year was a record, and that there were nearly 800 separate entries. If I take this along with the fact that many hundreds of people go to Eastbourne specially to see the tournament, and that at the big matches there

was the spectacle of quite three thousand people either sitting or standing on chairs in the effort to get a sight of the court, I shall conclude that the journals which are so fond of asserting that tennis has gone out of fashion (supplanted by golf) are rather out in their reckoning. This enthusiasm for the game is not in any way confined to Eastbourne, and the great thing is that the number of competitors at the different tournaments shows a general increase.

I do not believe that golf is a very dangerous rival of lawn tennis. It is at the best a slow and sedate (if not a sober) pastime as compared with the lawn-tennis Single. There is no direct combat in it in order to outwit an opponent, and the players go their own pace, and take their own time (and it often is a time, too!) over every stroke. The result is that it does not demand the qualities of training, quickness, and resource which make the lawn-tennis Single a first-class game. Although I do not endorse the view of the well-known jockey who said that golf "merely spoilt a good walk," it appears to me that (excellent game though it be) the attention it receives is just a little in excess of its merits as a game and not merely as an agreeable provider of exercise.

I have now drifted rather far from Eastbourne, but will return with all speed. As regards the play there, the board has usually been swept of late years in the open events by Messrs. H. L. Doherty, S. H. Smith, Hillyard, and Cazelet.* S. H. Smith has held the cup for three out of the last four years, and has defeated H. L. Doherty in two matches as against one in that time. From the many successes which Smith and Gore (who are practically base-line players, and nothing else) have obtained in the last two years, and, further, from the present position of Hillyard (who has beaten Smith and H. L. Doherty in the last two years, and who only lost to Gore this year by a pure accident), I arrived at the conclusion that the "old gang" of about seven years ago included some better players than any we have at present, except the Dohertys. At

* Written in 1902.

that time Ernest Renshaw, W. Baddeley, J. Pim, and H. S. Barlow were players who were a clear class in front of Hillyard or Gore, who are now in the front rank. I believe that the superiority of the four players named was due to the fact that they were all past-masters in stop-volleying at the net across the court, and could play from the base-line as well, if necessary. The success of the modern base-line players is, in my opinion, caused by the weakness of the volleyers in their base-line play. Base-line play alone forms a monotonous and one-sided affair, especially from the point of view of the spectators. The relative position of E. R. Allen (who is also a base-line player, and who won about a dozen Open Singles last year) among the players seven years ago and at present might also be cited in proof of my remarks about the class of play in modern tennis.

I may mention here the subject of back-grounds, as it has recently excited much attention among the leading players. The latter say that if the game be played with a green background at each end of the court (as on the covered court at the Queen's Club), formed by a huge screen of wood or baize, it is quite a different thing from playing where one is distracted by the dazzling glare from the many-coloured dresses and parasols of the spectators. They suggest that the screens should be generally put up in big matches, and that spectators should be placed on each side of the courts, but not at the ends. These suggestions appear to be the result of practical experience.

This seems to be the proper place for pointing out how much amusement would be added to sea-side "holiday" tournaments by the inclusion of a "mixed single" among the events. In order to equalise the players I should propose that the men should be debarred from (1) the volley, (2) the overhead service. By this means and by the usual system of handicapping a competition of the utmost interest would be introduced, while the need for returning everything on the bounce would greatly improve the back play of some of the men. In France "mixed singles" with an ordinary handicap are common enough.

CHAPTER XXII.

"A TOURNAMENT ON THE CÔTE D'AZUR."

OF course it would have been plainer to call it a tournament on the Riviera, but the same taste for pictorial paraphrase which causes the *Daily Telegraph* to call an oyster a "succulent bivalve" accounts for the title. There is now a regular round of tournaments on the Côte d'Azur in the early spring, and if the one at Cannice-sur-Mer, which we are about to describe, combines some of the features of more than one of them, it must be borne in mind that it is a composite affair. In the midst of a busy square in the town of Cannice lie four rubble courts, surrounded on all sides by an immense cage of wire, which, when the players are running about inside, produces something of the effect of a "Zoo" filled with restless animals. This effect is further heightened by the crowd of *canaille* who usually flatten their noses against the wire to watch the play. One feature is, however, lacking. The latter never bestow nuts or delicacies on the players, as in the case of a "Zoo"; perhaps because the people outside think that the crowd of well-dressed players inside does itself sufficiently well in "creature comforts" without their assistance. They would probably be still further confirmed in their opinion if they were to step inside the charming little pavilion of wood, painted green, which does duty as a tea tent. On reception days and during the tournament the Cannice Lawn Tennis Club does itself very nicely indeed. The surroundings of the courts are novel and striking. On one side a French band is venting its feelings with one of those peculiarly jerky melodies so common in France. The music is chiefly of the "Up, guards, and at 'em" kind, as if their

hearers were just about to charge the enemy. On another side is a large cigar-shaped balloon, which is one of the latest public toys.

On the left-hand side as one stands by the Club-house, there is a bull-fight in full progress across the road. The natives are greatly attracted by this latest feature of an enlightened civilisation, and not only throng the inside of the place, but stand grouped on the surrounding sheds to catch glimpses of the poor old horses who sally out for the last time in the third act of the drama with their gaping wounds stuffed up with straw as a makeshift till the end comes and the bull gives them their *coup de grâce*. The French are a nice, lively people, but there are certain drawbacks about them.

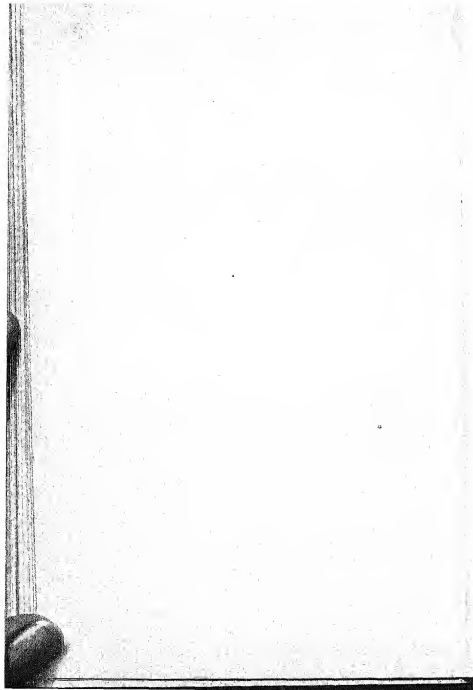
Turning our attention again to the courts, the personnel of the players who are present suggests some very "classy" English meeting, for champions and ex-champions are there in abundance. It might be said that the distance of Cannice from England and the time of year combine to limit the list of competitors practically to the *jeunesse dorée* of English lawn tennis, but for the fact that one or two of the best and most stalwart competitors are nearer to middle age than to *jeunesse*. The ball boys, tanned to a dull copper colour by the February sun and clad in the usual blue blouses, are a striking feature on the courts. They are usually far better coached in their duties than their English brethren. Under the shade of a palm tree, in a Homburg hat of a *recherché* style, stands the referee. He appears to find his duties rather difficult. "What on earth am I to do?" he says. "There is Jones, who won't play in the morning because he is playing golf; there is Robinsmith, his opponent, who won't play in the afternoon because he's going out motoring." To anyone accustomed to the vigorous and often ferocious tactics of an English official under similar circumstances this kind of leniency appears rather novel. "You will play at 2.30, or else you will be scratched," is usually the order of the day in England. But on the Riviera there is no hurry or bustle about anything; no one has any trains to catch

which matter a "jot." The very hotel-keepers mostly hold different opinions as to what o'clock it is, which vary to the extent of anything up to half an hour. Thus, if one is dining out, perhaps at the Métropole or the "Beausite," it may be as well to remember that Beausite time is a quarter of an hour slower than Métropole time. Even the people who manage the station clocks often have their own ideas as to the time of day. The climate is usually too hot to get excited about trifles, and there seems to be a general idea that things will all work out right in the end, so what is the use of bothering? The difficulty about Jones's golf and Robinsmith's ride is ultimately solved in an ingenious way. The referee adopts the plan of consulting their lordships overnight as to what hour of the day they would be graciously pleased to play, and thus the matter is arranged and everyone is satisfied. It is very nice, but it would hardly do at Eastbourne.

There is no doubt that the game of lawn tennis has taken the fancy of the *haut ton* of the French and Germans. A great number of the good villas, especially at Cannes, are provided with rubble courts, which are beautifully laid out. Many of them are surrounded with palms, bamboos, &c., growing in tropical luxuriance, and play under these conditions, in the beautifully clear atmosphere and with glimpses of the snow mountains at the back, is a very pleasant affair.

One of the amusing features of the Cannes tournament is the daily account of it in the *New York Herald*. It should be noted that it is only among the London newspapers that lawn tennis is, or was until recently, looked upon with indifference. This is because few of the newspaper people know anything about good lawn tennis, though many of them have a sound knowledge of cricket. On the Continent the qualities of the game are not "swamped" by many other sports as they are in England, and some of the papers, like the European *New York Herald*, publish full (very full) details every day in headlines. Sometimes one reads that some crack "had not been at all well lately, which might account for his ill-temper,"

&c., &c. Sometimes the report even takes a poetical turn, and we read that "the court was strewn during the match with violets, slowly dropping from the girdle of Miss Toobelle, which had been presented to her by one of her many admirers," &c.



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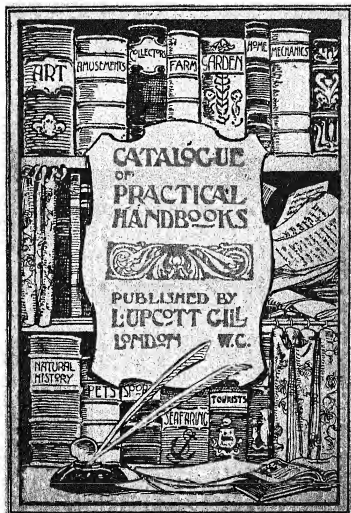
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